The Builder.

Vol. XXXIV. No. 1762. Saturday, November 11, 1876.

ILLUSTRATIONS.

The Episcopal American Church, in Rome.—Mr. Street, R.A., Architect 1096

Proposed Palace on the Trocadero, Paris: International Exhibition, 1878.—Designed by Messrs. Davioud & Bourdais, Architects ... 1097

CONTENTS.

Central London: its Rulers and Ground Landlords 1095

Mr. Charles Barry's Address as President of the Institute of Architects 1096

Old London and the Lord Mayor's Show 1099

Royal Institute of British Architects 1101

The French Gallery 1101

The History of Gas-lighting 1102

A Lady's Tracing-office 1104

Liverpool Architectural Society 1104

Completion of the Metropolitan Railway Extension to Aldgate 1104

A Gipsy Colony at Dulwich 1104

The Episcopal American Church in Rome 1104

Proposed Palace on the Trocadero, Paris 1099

What Style Next?—The Architectural Association 1099

Builders' Benevolent Association: Annual Dinner 1100

Builders' Clerks' Benevolent Institution 1101

The Crystal Palace and its Future Management 1101

Concrete Building: Exeter Diocesan Architectural Society 1101

Architectural Societies 1101

Competitions 1101

The Monument to Byron 1102

Sir Gilbert Scott and the New Assize Courts, Newcastle 1102

Photographic Society of Great Britain 1102

Church-Building News 1103

The Channel Tunnel 1103

Climate of the S.W. of Ireland: Glengarriff—Bantry Bay 1103

The Education of Artists 1103

Under Metropolitan Building Act 1103

Selection of Sanitary Officers 1104

Wages in Lieu of Notice: Liddard v. Stephenson 1104

New Shoreham Church 1104

Use of Chalk in Building 1104

"The Embankment and the Drowning" 1104

Surveyorship Items 1104

Masters and Men 1104

Whitby Jet Manufacture 1105

The Architecture of the Centennial Buildings: the American Institute of Architects 1105

Building in Chelsea 1105

St. Budeaux Church, Plymouth 1105

Messrs. Doulton and their Bricklayers 1105

The City Companies and their Halls 1106

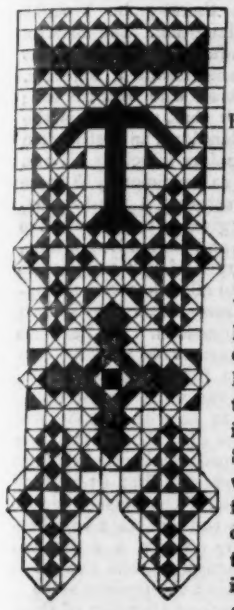
Berks Archæological and Architectural Society 1106

Hitchin's Rapid System of Plastering 1106

Statues 1106

Books received: Rawlinson's Lectures, Reports, Letters, and Papers, on Sanitary Questions (King) 1106

Miscellanea 1106



Central London: its Rulers and Ground Landlords.

HERE have been known instances of men and women—inhabitants of the Temperate Zone—who, having passed through two-thirds of the allotted span of life without washing any part of their bodies except just face and hands, have died from the shock of complete immersion in water. Such experiences being verified and accounted for, any proposal to deprive the capital of the British Empire of its accustomed abuses should be received by the inhabitants at large with caution. For when a Chief Commissioner of Public Works does his duty, unbiased by the obligations of political party, or the commercial interests of powerful individuals; when a Metropolitan Board effects a useful improvement with artistic method; when a vestry enforces the provisions of the Metropolis Local Management Act in their integrity and without favour; when historical landowners, holding territory by the right of a custom which has in it something of feudal privilege, remember, in return, the duties they owe to those who live upon their lands; when against the commercial procedure and artistic judgment of one who may own the soil of an entire parish, there shall exist a different and perhaps more appropriate Court of Appeal than the offices of an Inspector of Nuisance; when a serious attempt has been made to keep the outsides of public and private buildings decent; when a real effort has been made to keep the streets clean: if such things ever come to pass, what if London should succumb?

That craving for the innocent enjoyment of "home," said to be innate in and peculiar to the natives of this country, is grimly neutralised by the perpetual temptation held out to all grades of Londoners to play truant or leave it. While in Continental capitals the endeavour of authority is to render the centre of town pleasing and enjoyable to the middle and lower classes, the usual method, in Central London, of "spending a happy day" is to take a railway-ticket to the suburbs or the more distant country. To form a correct judgment of the British capital, it is necessary to examine its centre during the twenty-four hours of Sunday,—the period of hebdomadal rest, when, in theory, the human mind, while the body reposes, soars with sweet surroundings to the Infinite and Sublime. What, then, is done to aid a consummation so devoutly to be wished? Erring but hopeful man opens all the churches and closes all the public-houses during certain hours of the day. The respectable middle classes attend some place of worship; the upper classes are invariably orthodox, and, leaders of profane fashions, they are in duty bound to set righteous ones. But those who inhabit the bye-ways of Clare-market, of Gray's-inn-lane, of Drury-lane, of Bedfordbury, of St. Martin's-lane, and of the Seven-dials, do not, as a rule, bend the knee under either Gothic vault or Basilican ceiling; nor do a great many men,—albeit educated, thoughtful, and honest,—go to church; and the argument is that those who will not seek Sunday consolation there shall be made to suffer all that authority can do, or leave undone, to render the seventh day wearisome. Men of science and art, authors, press men, club men, and the majority of working men, are not church or chapel goers; so the national pictures, the national treasures of every kind, bought and maintained with the public money, shall be hidden from their sight; and the filth which encumbers the streets and public places on a Saturday night shall fester for thirty-six hours after under their very nostrils. Therefore a club man turns his chair to the wall, and sleeps the sad Sunday afternoon away (for all Englishmen are not husbands and fathers); the painter paints; the press man pens a leader for to-morrow; the man of science continues his researches; and those who love grand great things and beautiful little things, often shut themselves up with their books, draw curtains and light gas, while the sun still peers over the housetops, below which mud-stained walls and black-coated highways mock the light of God's Day.

We have been led to these reflections by an announcement that a piece of land in Northumberland-avenue has been hired for building purposes at an enormous sum per annum during eighty-nine years. After that, in the year 1966, the land, and whatever may have been built upon it, will revert to the landowner or owners,—that is, to the heirs of him or those who may choose to purchase, of the Metropolitan Board of Works, the annual ground-rent for eighty-nine years. Now, what are the particular advantages, besides commercial ones, which render the vicinity of the finest of sites worth an exorbitant rental? There are no delights in Trafalgar-square; artistically, it is the biggest blunder in Europe; and, although the "lords of human kind" condescend to pass by it, the hum of human life, which is heard there, is not more agreeable than that which pervades other places,—even where trees and flowers are railed in against a supposed enemy,—in Central London. There is nothing remarkable in the Nelson Column, except the folly which placed it in such a position as to mask the portico of the National Gallery to the eyes of an observer coming up the hill from Whitehall. Although tall columns and minarets are beautiful and useful accessories to a large building,—witness the mosques,—when they are in their proper places, they become absurd out of them. It is too late, however, to deprecate the error; but it is neither too late nor too extravagant to suggest the substitution of flowers, foliage, and turf for flag-stones; of trees for the present cab-ranks, because there are other places equally fitted for "Hansoms" and "Growlers"; and, above all, the expeditious rebuilding of the National Gallery façades.

Indeed, it may be a not-impertinent question for the *Builder* to ask why a much-abused but certainly not altogether abominable Greek building has been rendered ridiculous by the addition of a larger pepperpot and an Italian campanile of decidedly native application? Was it done under a misconception that these excrescences would not be visible to the world without? We are convinced that it was not so done. Rather, perhaps, the subordinates of authority,—the present Chief Commissioner, to be just, has not had much opportunity yet of exhibiting his judgment,—are of a Gothic turn of mind; and, struck with the imposing beauty of the rising Law Courts, they may wish to introduce something of the same kind in Trafalgar-square. Indeed, in the existing chaos of sentiments and styles it is impossible to say what may be the vagaries of those who direct the design of our national monuments.

We do not deny that the state of some public buildings, which, nominally completed and really occupied, vex the regard of both natives and foreigners, is sufficient to induce even a wish that no further accumulation of such works be permitted until the more recent ones are satisfactorily finished. The Parliament-street façade of the new Home Office offers either an enigma, which we should willingly hear explained, or an omission, which ought to be supplied. Over a portion of the front the crowning feature—a balustrade—is made to stop abruptly as it approaches each extremity, leading the spectator to infer that either pedestals to hold sculpture, or an extra story, had been intended by the architect; for it cannot be supposed that any one with the smallest judgment in such matters would have left the skyline of the new Home Office in its present condition of incompleteness, even when examined in a utilitarian point of view. The useful, however, asserts itself in a very remarkable manner, in other of our national buildings. There is the British Museum, the front of which is neither more nor less than a mask of Greek columns, entablatures, and pediments. These colonnades, having been objected to by the critics as mere specimens of mistaken sacrifice to misplaced beauty, have been converted by the skill of the carpenter into wooden houses for treasures which the nation has neither the will nor the money to house elsewhere. The consequence is that the front of the British Museum resembles somewhat the condition of an antique temple in the days of monkish exclusiveness, or a Mogul Palace in the occupation of Royal Engineers, both of which, at different times, have been choaked with the extemporised hovels of wanderers, who have been permitted to desecrate them without protest or perhaps even a sigh of regret. Nor are a few pretty remi-

niscences of Swift's and Bolingbroke's day much better respected by authority; which, having begun life with a blind adherence to the most degraded form of Mediæval architecture, broke in its prime with youthful convictions, and in its age finds itself without "a taste." At a time when, in any part of England, the news that an old barn which was known to have borne, three or four hundred years ago, an open-timbered roof, would draw from respected members of the architectural profession offers to restore it to its original integrity, at the usual rate of commission, not a voice is raised,—not even a sentimental tender is made,—to re-erect the great entrance to the famous Earl of Burlington's town house. The bleached stones lie, exposed to the mischievous curiosity of all the world, on the banks of the Thames! In spite of empty ecclesiastical thrones and sedilia, of a brand-new piscina in every old town and country church, of Gothic manses and schools, of Japanese pots and pans and all kinds of æsthetic upholstery, the old verse still holds good, if the real and not the affected sentiment of the country be gauged; and men, with the smallest help of their imagination, may still believe,—

> "The love of arts lies cold and dead
> In Halifax's urn;
> And not one Muse of all he fed
> Has had the grace to mourn."

It is the same, although not to the same extent, with the little archway at the foot of Buckingham-street, in the Adelphi. It remains a receptacle for refuse, and we suspect affords, through a broken iron gate, a surreptitious entry to the Embankment gardens after the other entrances are closed. This unique archway ought not to have been buried in the manner in which it now appears. The earth should be even now dug from around it; its original level restored, drained, gravelled, and protected from intrusion by a railing or dwarf wall; for there are few things in the neighbourhood which equal the constructive elegance of the little Buckingham-street Water-gate.

It would be possible, however, to forgive a disregard for the works of the last two centuries if any evidence showed that there was a real desire to make use of the works of the present one—to regard the best of them as parts of a great whole to be worked into new schemes of improvement. Had the Nelson Monument been a work of art comparable to the Vendôme Column, it would have been monstrous to lay out Northumberland-avenue in such a way as to lose a distant view of the monument; but, we repeat, the Nelson Column is out of place in its actual position; and when the public is better educated than it is at present, some pains may be taken to remove it as well as its companion eccentricity at Hyde-park-corner. But the Metropolitan Board, we are told, are devising means for making a wide and direct thoroughfare between Charing-cross and Holborn; and, for a long time, rumour has suggested a new street from the Strand, *viâ* King William-street, to the top of the Haymarket. Now, at the present moment, parts of Panton-street and neighbouring streets show vacant sites of freehold property, while, at the back of the National Gallery, the land belongs to the Government. As the approaches to form the new street to Holborn will necessitate the purchase of property, perhaps on both sides of St. Martin's-lane, it is advisable to consider the feasibility of making at the same time another street almost at right angles to the former. The purchase also of a few houses on the Pall-mall side of the National Gallery would not only admit of a direct opening from Trafalgar-square to Leicester-square, but permit the complete isolation of the National Gallery itself—thus securing it from the constant danger of immediately contiguous fire.

Some years ago an attempt was made to penetrate the huge slum of Soho by continuing Dean-street in a straight line to Leicester-square, and to do this it would have been necessary to purchase the land upon which Saville House, burnt down several years ago, once stood,—land which, up to the present day, has been occupied by a subterranean *café*, burrowed and hidden away under blackened ruins. It is quite needless to say that in few other European capitals would such a spectacle as that so long presented by the barricaded remnant of Saville House have been tolerated. The cause of the nuisance lies in the rights, not the duties, of the landowner; and in the easy licence of leasehold speculation. The land belongs to a freeholder rich enough to be careless of property worth perhaps from 15,000*l.* to 20,000*l.*; and it is hampered by a leaseholder who can hold a one-story *baraque* extemporised upon it for life. Thus, for a whole generation, and perhaps much longer, the unsightly ruins of Saville House may remain in their present condition. There is no law to remonstrate either with freeholder, leaseholder, or tenants, representing that peculiar combination of interests which renders any one owner absolutely impregnable against all attack. Nevertheless, in the interests of the public, and in the face of the present condition of metropolitan building,—its consequences to health of body and mind,—we must fain place the saddle upon the right horse; and that horse is the ground-landlord. It is the current custom to attribute the actual condition of our houses to the wilful carelessness or invincible ignorance of architects in general; but, however much it may surprise outsiders, we feel bound to declare, as we have declared a hundred times before, that very few architects have anything at all to do with the town-houses, or even the suburban villas, of London: they are built by speculators, who, if they do employ an architect, simply pay him for his plans and elevations; and often refuse to listen to his advice concerning drainage or foundations, the proper material for floors, and horizontal divisions, or the necessary covering for rooms in a roof, &c. The architect, at the best, is only an adviser; he can do with his client no more than the doctor can do with his patient. He can order a concrete foundation over the whole site of a new building, but he can no more compel the owner of the building to pay for it than the doctor can make a sick man swallow a bolus. It is, therefore, not the architects who are responsible for the present state of house property in Central London. Is it, then, the speculating leaseholders who should be condemned? We think not; for in building they always run a risk, and sometimes enter into arrangements with money-lenders, which may ultimately land them in the Bankruptcy Court. Is it the householder, or the tenant-lodgers? We know that it is not; for they have not, and never have had, a voice in the building of the houses which they inhabit. The fault, the blunder, the great responsibility, lies with the chief and first speculator—the freeholder of the soil. Now, the greater part of this soil, in Central London, belongs to nine owners, and their names are,—the Duke of Bedford, the Duke of Portland, the Duke of Westminster, the Marquis of Exeter, the Marquis of Salisbury, the Marquis of Northampton, the Marquis Camden, the Earl Craven, and the Earl of Portman.

It is probable that if the majority of these noblemen were questioned concerning the interiors of the houses built upon their lands, they would be utterly unable to answer one word about them. Their business, executed by their agents, is to lend land, and upon the lending of this land their incomes largely depend; the incomes of their fathers, grandfathers, and great-grandfathers largely depended; and to which same lending their sons, grandsons, and perhaps a remote posterity will look for support. Upon one great estate, which comprises the entirety of one parish and the larger portion of others, this is how things are managed, we venture to believe, to the doubtful benefit of both landowner and his tenants. There is, of course, a steward, who is the respected terror of leaseholders, present and future. There is a surveyor, whose duty it is to spy out any nakedness or building corruption which may prejudice a noble employer, and he is very wisely restricted from acting as surveyor or pseudo-architect on behalf of any person building upon the estate he is deputed to survey. But he has a brother, and what more natural than that the latter should profit by the restriction placed upon the surveyor's powers? Thus, when the expiry of a lease is at hand, the usual notice is served upon the leaseholder; the conditions under which he may renew the lease are intimated to him; the defects of the existing house and the necessity of rebuilding are pointed out. The tenant, whose business perhaps depends upon the locality, seeks the freeholder's surveyor. He is, perhaps, coldly received; his suggestions treated with polite contempt, and his demand for advice referred, perhaps, to the surveyor's freer relative. The consequence is, that the latter gentleman often acts as a tenant's professional adviser; and, with the aid of a builder, who may be also a tenant on the estate, and perhaps a member of the vestry, the house rises. There is nothing dishonourable in such a mode of carrying on business, and we admit that such a system may be accompanied by the exercise of the strictest integrity. It is found sometimes to answer in diplomatic concerns, in Parliamentary matters, in commerce, and in trade; but it is not found to answer in building houses upon the great estates of Central London; and it has produced neither satisfactory results in particular cases which have been brought under our notice, nor is the general result satisfactory, as the public knows full well.

The circumference of town is covered principally with rows of villas, terraces, and shops, and, as a rule, each house is there occupied by a single family. For the present, therefore, even its mismanagement is not sufficient to excite reformers who have far more pressing work on hand. The plague-spot of the metropolis is its centre, in and between the estates of the great freeholders. Let these noble owners take the matter up, seriously and honestly, for the public good, if not for their own. Let them suggest a means of co-operation to the different vestries and Boards. Even the homes of those poor who are now hopelessly located upon some of these estates might thereby be brought within a possibility of redemption. The miseries and temptations they endure, in the worn-out houses in which they are huddled together, appeal to the mercy of those who own the soil; and we cannot but think that, sharp as is the business-eye of a ground-landlord, he is still often half-blind in many particulars affecting his own private interests almost as perniciously as those of the dwellers upon his estate. A word in conclusion. There have been given in the pages of the *Builder* too many proofs, and for too long a time, of the conservative temper of our suggestions and mode of argument to allow any one to suppose that we entertain sensational views upon great political or moral questions. We have but lately, and in the most unreserved manner, condemned the working-man for unreasonable and mistaken attempts to advance his own welfare; but when he has come to us with the story of his wrongs—of his satire of a home—we have helped his cause with words and remonstrance. More a journalist cannot do; but everything points to a likelihood that, if the present tenure of land be aggravated by the continued heedlessness of a few hereditary owners, a great evil may befall not only themselves, but the whole community. We commend the present state of Central London to the serious attention of those families whose privilege is the perpetual inheritance of its soil, and who in connexion therewith, and by present arrangements, are rapidly absorbing the accumulations of the middle classes. That the position is pregnant with danger needs no recital of either precedent at home or of historical parallel abroad.

MR. CHARLES BARRY'S ADDRESS AS PRESIDENT OF THE INSTITUTE OF ARCHITECTS.

At the opening meeting, held on Monday last, Mr. Charles Barry, president, said,—

In addressing you for the first time as your president, the responsibilities and duties of the position become very real to me, and cause me no small hesitation as to my power to discharge them as I feel they ought to be discharged. I am fully conscious that many another member of the profession has higher claims than I to this office, and yet when such a distinction is conferred on a man by his peers, and even by his superiors, it cannot fail to stimulate his best energies for the duty thus cast upon him, which is inseparable from the honour itself. We are, indeed, all fellow labourers for the advancement, the honour, the purity, and the better appreciation by the public, of our noble profession, and, as in a racing University crew, all being good men and true, one is of necessity chosen as "stroke" to guide and harmonise the efforts of the rest, so I feel that you have placed me in a like position, and that in helping so far as I may to the success of all our members I have a much more than personal responsibility to discharge. In attempting to do this I shall need, and, I am sure, receive, your hearty good wishes and most necessary help. I look back on the honoured names of those who have preceded me as presidents, some of whom are happily still among us, and I naturally fear that I may not be able to render such good service as many of them have done: all I can promise you is to do my best. And here I hope I may be pardoned if I allude to one near and dear to me above all men, who, though never president of this Institute, held a name revered by all its members as one of themselves, personally loved by many of them, and

honoured throughout the world as one of the architects of history. My father always took deep interest in the welfare and progress of this Institute; was, I believe, one of its founders; and, I well know, esteemed the honour of the Queen's Gold Medal, voted to him by his colleagues and friendly rivals here, the highest among the many honours of a like nature he received from home or foreign artistic bodies, second only, indeed, to the personal honour conferred on him by his Sovereign. It is not ordinarily given to two consecutive holders of a distinguished name to be distinguished; at the same time, it is a great spur to exertion to be the holder of such a name as mine, and I feel it is no small part of the honour you have done me in electing me to this chair, that it indicates as I trust that in endeavouring, however humbly, to follow in my father's footsteps, I have not discredited the high position achieved by him.

You will naturally expect me to say a word of thanks in your name to your late distinguished president, whose great learning, not only as an architect, but as an antiquary, has so often thrown light on questions which have interested the Institute, and whose large circle of personal and professional friends feel attachment as well as esteem for him. His very numerous and engrossing professional occupations were rarely allowed by him to interfere with his attention to his duties here when he felt his presence was desired or desirable. Only during an anxious period of some months, when his health gave way, was he continuously away from us; and now that he has returned to us with renewed strength, we feel great regret that his term of office has expired, and trust that, from the intimate knowledge he has acquired during his presidency of the needs and objects of our Institute, he will still devote his time and abilities to aiding those who have now to take the labouring oar which he has relinquished.

It is usual and useful in these addresses to place on record some of the statistics of our Institute during the past year. I will therefore state that whereas in November, 1875, there were 298 Fellows, 290 Associates, 12 Honorary Fellows, and 9 Contributing Members, making a total of 609 members; now we number 306 Fellows, 309 Associates, 12 Honorary Fellows, and 9 Contributing Members,—in all, 636, or an increase of 27 members. I venture to hope these numbers may still be largely increased during the present year. In the year 1875 there were also 33 Students, this number is reduced now to 21.* Now, satisfactory as the above numbers are, I think we must all feel that our profession is nevertheless not as fully represented as it ought to be by the Institute, especially when we see that the Institution of Civil Engineers has no less than 2,400 members, of whom 155 have become members during the past year, and even the recently-constituted Institution of Surveyors has 440 members, of whom 52 have become members during the same time. I name these two bodies as being to some extent cognate with ourselves, but chiefly as evidence of what may be done by hearty action for a common object. We have no reason to complain of our financial position if we simply compare it with past years, for the income of last year was higher than that of the two previous years, and I have some reason to hope that the income of the present year will be still higher, but here again we cannot but feel that our income ought to be very much larger than it is (some 1,600*l.* or 1,700*l.* a year, exclusive of trust funds and special donations) if the Institute is to fulfil all its functions in the efficient way we all desire, but to do which much larger funds than the above are obviously necessary. Here, again, individual members may do much, if they will only be mindful, when opportunity arises, to point out the present, and we hope the increasing, advantages of membership here, and if they will be earnest in making the best use of such advantages themselves. During the year, 53*l.* 11*s.* have been received on account of the Library Fund for purchase of interesting and important works, either at public sales or from the collections of deceased members of this Institute.

My next reference must be to the mournful but ever-recurring subject—that of noting those of our members whom we shall see no more among us. They have finished the work on which we are still labouring, and it may be some little encouragement to us to note the esteem in which they are held when their work is done. The list is unhappily a long one. We have to deplore the loss of nine Fellows, viz., Messrs. E. Roberts, Richard Tress, D. A. Cobbett, H. H. Vale (of Liverpool), James Noble, John Tarring, Henry Roberts, David Bryce, and Thomas Bellamy; also of three Associates, viz., Messrs. T. H. Stevens, Albert Bridgman, and T. Burwell. In the list of our Honorary Members we must henceforth look in vain for the name of Sir Gardner Wilkinson. Among those foreign brethren in art whom we are pleased and honoured to have associated with us as Honorary and Corresponding Members, a band lately so honourably represented in this room by the Queen's Gold Medallist of this year, Mons. Duc, we can no longer number—Mons. F. Lange, Herr T. H. Wolff, Herr Rudolph Weigmann, Herr Frederick Ziebland, and Mons. Edouard Metzger. The memory of Mons. Labrouste has been duly brought to your notice by the feeling sketch of him and his career read to you during the past session by our Foreign Secretary, Mr. Cockerell. As I had not the pleasure to be personally acquainted with some of these gentlemen, but as I feel a desire (shared I am sure by you) to give expression to our feeling of regret at having lost them, I would briefly record, so far as possible, the story of their efforts and successes. I have, with the kindly help of the two secretaries and others known to them, drawn up some few notes of their claims to kinship with ourselves.

Edward Roberts, F.S.A., Fellow, was born in the year 1819. His architectural works were not numerous, but among them may be mention the Institution and Market at New Swindon, illustrated in the *Builder* (for 1854); and the Buildings of Christ College, Finchley. His practice for many years chiefly consisted in the management for his clients of compensation cases connected with metropolitan improvements and railway projects, a branch of professional business on which he bestowed great care, and with very notorious success. He took interest in the formation of the Junior Athenæum, and was professionally employed for the club in adapting a small house in King-street, St. James's, for Club purposes; when the Club removed to Hope House, Piccadilly, he added a handsome and commodious smoking-room for the members. Mr. Roberts was a Fellow of the Society of Antiquaries and a member of the British Archæological Association, of which latter he became in 1862 one of the hon. secretaries. He frequently attended the meetings of the latter society, and contributed to its transactions many valuable descriptions of ancient buildings, which he illustrated with measured drawings by his own hand. As a Freemason he was a member of the Grand Lodge, as well as of the Methuen and the Middlesex Lodges, of which latter he held the office of secretary for thirty years. Mr. Roberts's then recent death was mentioned in the President's opening address of last session.

Richard Tress had a large business connexion, principally in the city of London, and during a practice of above forty years was engaged in many public works, and buildings of large extent for mercantile clients. He was surveyor to several of the City parishes, and superintended the alterations to and restorations of a good many City churches, notably those at St. Mary-le-Bow, St. Michael, Paternoster Royal, and St. Augustine, Watling-street. Among his other works are the City of London Union Workhouse at Bow, and the hall of the Cutlers' Company, to which he was the surveyor and afterwards a member of the court. He carried out the present Sadler's Wells Theatre; the warehouses of Messrs. Copestake & Co., Cohen & Co., Smith & Lister, Messrs. Allan's in St. Paul's Churchyard, and many others; while among his suburban and country works may be named the London District Schools at Hanwell, and mansions at Huddersfield, Taplow, and several in the vicinity of London. It will thus be seen that he was essentially a City architect, and was enthusiastic in his feelings for all that appertained to the City, its traditions and customs. He resided for many years of his life in an old house in St. Thomas Apostle, which had been once the residence of a City merchant of the olden time, and had many artistic features still remaining, characteristic of the age of its erection. Mr. Tress was many years in partnership with Mr. Francis Chambers, and at the time of his decease was professionally associated with Mr. Charles Innes. He was a friend of my father's, and on one occasion assisted him in superintending his designs for the additions and alterations to Ensham Hall, Oxfordshire, the seat of the Earl of Macclesfield, where I first had the pleasure of making his acquaintance. He was for many years a Fellow of this Institute, and I find that his nomination paper was signed by Sir Charles Barry (then Mr. Barry), Sir William Tite (then Mr. Tite), and Mr. John Shaw, a sufficient evidence of the esteem in which he was held by his contemporaries. He was also an active member of the Society of Arts, &c., in its early days. He died on the 29th October, 1875, at his residence, in Regent's Park, aged 65.

David Bryce, R.S.A., Fellow, was born in 1803. His father carried on the business of a builder in Edinburgh, at the High School of which city our deceased friend was educated. Having shown an aptitude for drawing, he entered the office of the late Mr. Burn, the well-known architect, and afterwards became his partner, until in 1844 Mr. Burn left Edinburgh to practise in London, and Mr. Bryce succeeded to much of his Edinburgh practice. Mr. Bryce was remarkable for his skill in planning buildings. He was largely employed on the alteration of country houses, &c., and he converted many inconvenient dwellings into comfortable residences. He designed buildings of every description, and in many of them adapted (not unsuccessfully) the Scottish Baronial style to modern requirements. His works are characterised by great freedom of treatment and were vigorous rather than refined in detail. Among his most important public works are the Life Assurance Company's Offices, the Exchange Bank, the Western Bank, the British Linen Company's Bank, the Edinburgh and Glasgow Bank, the Subscription Library, the Surgical Hospital, the Standard Assurance Office, Fettes College, the Sheriffs' Court, the Bank of Scotland, the Royal Infirmary, and the Union Bank, all in Edinburgh. In Glasgow and Dublin he erected several public buildings of a similar class. Of private mansions he designed or remodelled an extraordinary number, during a period of active practice extending over a period of thirty years. He died at Edinburgh on the 7th of May, 1876.

Henry Roberts, Fellow, was a pupil of the late Mr. Charles Fowler, and subsequently entered the office of Mr. (afterwards Sir) Robert Smirke. His most important work was the Fishmongers' Hall, London Bridge. He also built a church on the site of the unfortunate Brunswick Theatre in Whitechapel, as well as some private mansions for friends, among others one for Mr. Kekewich, near Alphington, in Devonshire. His name is, however, best known in connexion with Lord Shaftesbury's Society for Improving the Dwellings of the Labouring Classes, a work to which he devoted great attention and gratuitous labour. It formed the subject of a paper which he read at this Institute in 1862, and which was deemed of sufficient importance to be printed in the form of a pamphlet and circulated among our members. An animated discussion, extending over two evening meetings, showed the interest (still unabated) that the subject naturally has for architects. In Streatham-street, near the British Museum, he built the first block of model lodging-houses erected for the above Society. With the same philanthropic object in view he afterwards followed up his efforts to improve the dwellings of the working classes in Belgium and Italy, but with what success I am unable to state. In earlier life he competed for Mill-hill School, Hendon, when the late Sir William Tite, who was also a competitor, was successful. Sir Gilbert Scott was for a while in Mr. Roberts's office. Mr. Roberts died in the spring of the present year at Florence, where on account of his failing health he had resided for some years.

John Tarring, Fellow, was born at Holbeton, near Plymouth, where he is said to have worked at the bench as a young man. He came to London in 1828, and entered the office of Mr. Brown, architect and surveyor; he gained the Royal Academy Silver Medal for measured drawings, and records of his early studies are still preserved at the Institute, of which he became a Fellow in 1845. From the time of his commencing practice as an architect, his business steadily increased. He was employed by the late Earl of Combermere on the restoration of Combermere Abbey, and he carried out extensive alterations at Thornton Hall, Bucks, the seat of the Hon. Richard Cavendish. He also executed a large number of churches and chapels, chiefly for dissenting congregations, and also carried out some warehouses and factories of considerable extent. Mr. Tarring made suggestions and submitted plans to the Govern-

* This reduction is due to the fact that the term of studentship has expired in the case of some passed candidates in the Architectural Examination admitted gratuitously.

ment for concentrating the Government offices in one block of buildings on a site adjacent to that occupied by the present Government offices. Particulars of this scheme were published in the *Builder*. When Sir Benjamin Hall, as First Commissioner of Works, subsequently initiated the competition to the architects of the world for the same object, Mr. Tarring submitted fresh designs adapted to the then suggested site, and these, though gaining no premium, were criticised favourably by the press. He died at St. Andires, Torquay, on the 27th of December, 1875, aged 70.

James Noble, Fellow, was one of the oldest members of this Institute, having been elected a Fellow in 1835. In the following year he published a work on "The Professional Practice of Architects and Surveyors," which he dedicated to Lord de Grey, then president of the Institute. This book, which is in our library, deals in turn with the subjects of metropolitan improvements, the value of building ground, sewage, water supply, materials, valuation, and contracts, and concludes with a schedule of the then recently-erected churches under the Act of 1819, and has, therefore, some historical interest. Mr. Noble's name is, however, chiefly associated with valuations, in which he was a professional adept. He lived to a very advanced age, and died at his residence in Chelsea last year.

Thomas Bellamy, Fellow, was one of the original founders of this Institute, being elected in 1834; his death was announced at the closing meeting last session. He was born in 1798, and died in the early part of this year, aged seventy-eight; he was a pupil of Mr. David Laing, and had for his fellow pupils men afterwards as distinguished as himself, among them Sir William Tite, Mr. Chas. Fowler, and Mr. Thomas Lee. He was a really conscientious student of his profession from his youth until the day of his death, scrupulously accurate in the working out the details of his designs, an honourable upright architect in the best sense of the word, and a great loss to a circle of friends, who, notwithstanding his naturally retiring disposition, knew enough of him to esteem him highly and lament his loss sincerely. As his old friend, Professor Donaldson, has most kindly undertaken to draw up a memoir of our lost colleague, I need say no more here, but confidently leave the matter in his able hands. King's College Hospital; the Law Fire Office, Chancery-lane; Corsham-court, Wilts; and many other works, will prevent posterity from forgetting the name and merits of Thomas Bellamy.

Henry H. Vale, Fellow (of Liverpool), was born in the year 1831. He belonged to a Warwickshire family, and was a pupil of the late Mr. Henry Roberts, architect, of Liverpool, from whose office he passed into those of Mr. Trubshaw and Mr. Grayson, before commencing to practise on his own account. Although he had not at the time of his death carried out many important works, his local practice was considerable; he designed the Oxford and Cambridge Chambers, in Lord-street, Liverpool, and two Congregational Churches in that city, besides another at the Hague. In conjunction with Mr. C. Sherlock, he designed the Walker Art Gallery, and many other buildings at Liverpool, besides many buildings of a domestic character. He was for some time president of the Liverpool Architectural Society, and his name was well known and respected. It would seem, indeed, that the constant demands on his time and thoughts proved too much for his bodily and mental organisation, for he could have had no anxiety as to his professional position and success; he was found drowned towards the end of August last year, and this melancholy act was no doubt rightly attributed to temporary insanity produced by over-pressure of work.

Albert Bridgman, Associate, became a member of this Institute in 1874. Although a very young man, he has executed a number of works, among which may be named the club at the south-east corner of Ludgate-circus, the Imperial-arcade annexed to it, and extensive buildings on Ludgate-hill and other City thoroughfares. Mr. Bridgman gained the second premium in competition for the Paddington Baths and Washhouses. It is said that in 1873 he was the first to conceive and advocate the idea of an aquarium for London. With this object in view, he prepared and submitted to the Metropolitan Board of Works designs for a group of buildings on the Embankment, near Waterloo Bridge. This design included an art club, museum, and library. In consequence of some difficulty in obtaining the site, Mr. Bridgman's scheme was delayed, and ultimately abandoned on the erection of the Royal Aquarium at Westminster. He died at Torquay, at the early age of thirty-five.

While our feelings have thus been occupied by those who have passed away, it seems not unfitting to allude to two operations going on in distant lands, which evidence how close are the feelings of sympathy connecting distant generations of artists with their still living brethren,—a sympathy which so ennobles the study of art, and distinguishes it from the mere pursuit of wealth by trade and commerce. In the early part of this year architects were interested greatly by sundry accounts of the successful explorations and excavations undertaken by Professor Curtius, at the instance of the German Government, in the plains of Olympia. The results hitherto of these labours have been recorded in the form of a portfolio of photographs of the fragments found, with description of each of the subjects, and the supposed positions of the fragments and their relation one to another. The labours of the professor and an able staff have again been resumed, and are to be vigorously prosecuted during the winter months, and other portfolios will record the result of other years' labours, until the whole work is complete, when all will be brought together, revised and formed into a comprehensive work of doubtless extraordinary interest. Our best wishes must accompany Professor Curtius in his labours, and as he has accomplished so much at his first attempt, when working comparatively in the dark, we have every reason to hope that sufficient fragments of the sculptures and details of the architecture will be gradually recovered, to enable us to restore the most famous of Grecian temples in a manner so complete as to render not only its form but its beauties intelligible to and easily appreciated by all. We may, I think, look forward at Olympia to a result as gratifying as we have seen in the transformation of the uninteresting Campo Vaccino at Rome, as it remained for centuries, into the now excavated and explored Roman Forum.

We cannot speak so hopefully of another work of exploration (but one of no less interest) undertaken, also, by a distinguished German. I mean the excavations made by Dr. Schliemann at Hissarlik, to ascertain, if possible, the site of Ancient Troy. He has been obliged (let us hope only for a time) to abandon his interesting work here, in consequence of the obstructiveness of the Turkish Government and the subordinate officials, but with characteristic ardour he has turned his attention in the meanwhile to the ruins of Mycenæ and Argos, and is at present occupied in exploring the so-called treasuries and other monuments connected with these ancient cities. His explorations have not, however, proceeded far enough as yet to enable any reliable opinion to be formed how far his efforts are likely to be crowned with success, or to open up important archæological discussions, and we can only bid him also "God speed."

And now, gentlemen, having completed our retrospect, let me ask you to consider with me our future—the past is out of our power, but that which is to come may be influenced or even directed by ourselves. Stirring in the minds of us all have been thoughts, desires, schemes, as to how we may make the organisation of this Institute more effective and more generally available; and here I would venture to say, that, in my opinion, the number of members who attend our evening meetings and take part in the discussions, although frequently taken as a test of our vitality and usefulness, is not the only or even the most important evidence in that respect. The real test, as I think, of the usefulness of a body like ours, is the respect paid to it by members of our own profession within, and, above all, the esteem in which it is held by the public outside its ranks. I would fain see more and increasing evidence that these are facts, and it is by our exertions to strengthen these two lines of thought and consequent action that I think all our efforts should be animated. I feel convinced that, if day by day these two feelings can be shown to increase and strengthen, we need have no anxiety as to our financial position, or as to the increased interest of our meetings and discussions. Let us then consider, so far as we may, what hindrances have existed or do exist to the above desired objects,—whether the hindrances are supplied by ourselves, and how far, therefore, they are in our power to lessen or to remove; whether they arise from the public want of confidence in us; or lastly, to any want of sufficient capacity on the part of the public to appreciate us as we think we ought to be appreciated.

I think it will be found that there is much under each of these three considerations. Now, first as regards ourselves, we may be quite sure that unless we have real confidence in and respect for each other, we cannot blame the public if they they have not. It is to the credit of this Institute that one of the chief objects of its original foundation was not alone to promote professional study, research, and talent, but to maintain and enforce professional honour; never let us forget that. It must be a subject of unfeigned satisfaction to those old enough to remember the infancy of the Institute to see how much has been done by its action and influence in this respect; but I appeal to the experience of all whether there is not much more to be done in the same direction. Are there not instances still to be found where by insincere criticism, or more unworthy means, architects have superseded a professional brother in the work which he fondly had deemed to be his own, and by means of which,—if he could reckon on the friendly help and advice of his professional brethren when their duty made them his critics, or, if he could depend upon their praises for what might be good in his work; for their kindly suggestions how its imperfections might be removed, in place of their only noting (as we too frequently see) the defects of his design,—he might to have been enabled to rise one more honourable step on the ladder which we all find it so hard to mount.

Are there no cases known to us, where, when public bodies (as they are only too prone to do) take a low view of the professional services which yet they feel are essential to them, and offer remuneration in total ignorance of the value of the services they require, or the live-long study and costly education necessary to make an efficient architect, the architect frequently feels that he is almost bound to submit to the hard terms laid down, because he knows that other members of his profession will take his place if he relinquishes it, and on the principle that half a loaf is better than no bread? And if this be so, how can we wonder at public bodies persisting in the pernicious and unfair action to which I have alluded, and continue to value our professional services far too meanly?

Again, if (as I fear) we are not yet permitted to hope that the present baleful system of architectural competition may be given up for some mode more rational and more just of attempting to discover rising talent, is it too much to expect that the professional rivals in each case shall remember that they are still professional brethren, and that as a point of honour they are bound to refrain from all artifices of drawing, misleading estimates, or from showy and inflated description which does not truly represent their design, or which may be calculated to mislead the very singular and frequently incompetent bodies who affect to act as judges?

The example recently set by the town of Leeds of choosing a skilled architect as the judge of designs sent in competition for their new municipal buildings, and proposing an unexceptionable list of architects, all well qualified for such a duty, in order that the competitors themselves might select the one to decide between them, seems to me to be the beginning of better things, and to be a course most likely to result in a just and satisfactory decision. Our good friend Mr. Cookerell, who has been chosen by the competitors, will, I feel sure, discharge his rather delicate duty with all the talent requisite for such a task, and with the most perfect impartiality. I hope the result in this instance will be so satisfactory to all parties that it may really be the commencement of a system.

Again, do we not also see, from time to time, cases in our courts of law where professional evidence is asked for, and too readily obtained from professional men, to discredit a professional brother,—evidence given (as we must frequently think), not with the simple desire to make evident the truth, but with the spirit of an interested advocate, or to curry favour with special persons?

Now in all these cases, we, as a profession, have it in our power to do much if we will to diminish or abolish these scandals, abuses, and consequent hindrances to our efforts. In some few cases (I wish they were more) this Institute has been able by kindly advice or mediation to prevent differences of opinion between employer and architect, or between members of our body, from growing into disputes. Of course, this

action can only be beneficial if both parties, while they honestly differ, are yet sincerely desirous to do what is right by one another; and it is further evident that if this were more universally the line taken by architects in their dealings with each other, and with their clients, courts of reference, or arbitrations of any sort, would be little needed, for the majority of differences would never arise.

While, therefore, I would advocate the utmost professional freedom of opinion, taste, and judgment, I would press the advantage of *personal* brotherhood and unity. We should differ broadly still from trade unions, to which we have sometimes been improperly compared, in which personal freedom of action is required to be sacrificed to some arbitrary rules, frequently those of the minority, and to rules which favour the worst and not the best men. With us, on the contrary, an unwritten and unenforced law (no less potent from being unenforced), such as I have ventured to shadow out, would be all-powerful with honourable minds, and would also effectually stamp all unworthy men. In the attempt to ensure this, I would gladly see all the members of this Institute continue the good efforts begun by its founders, and I rejoice to believe such efforts are still made among us. All good men wish to be led and represented by the best; and the better they are themselves the more they wish this. In believing that the men of our profession are good, I credit them with this wish; and they will thus naturally desire that by every possible means this, as the representative body of the profession, shall be supported in carrying out these principles. So only shall we, with increasing respect for each other, and perfect faith in each other, command respect and confidence from the public, among whom we live, and whom we desire loyally to serve.

Leaving now what I may term our internal abuses and grievances, let us consider whether the difficulties we often meet with arise from want of the public confidence in us. Now that there is a want of entire confidence of this sort is true, and I think it may be taken as arising from one or all of the following causes:—1st. A belief that the architect, as a rule, thinks more of the outward effect of his design than the uses for which the building is needed; 2nd. A want of credence in the accuracy of architects' estimates, and a tendency to rely rather on those of the tradesman, thus producing an indisposition to employ an architect at all, and to rely on what are called practical men, *i.e.*, less educated men, and not artists at all; 3rd. A sort of half-ashamed and half-expressed belief that architects will so far forget all principles which should actuate honourable men as carelessly or even knowingly to increase the cost of their works in order to increase their professional emoluments therefrom.

Now, of course, there are architects *and* architects, the like in name but greatly different in fact; and we must, I fear, admit that, as to the two first reasons for want of confidence, there are illustrative instances to be found, though hardly any (if any at all) for the third reason; and the only way in which we can hope the public may be disabused of these in the main most erroneous ideas is to be able, in the future, to challenge and disprove the accusation that internal usefulness is really sacrificed to external effect by defying the accuser to find an instance in point in the work of an educated architect of recognised position in his profession, and to show that such unreality, when it shall exist, shall only be found in the works of mere builders and pretenders to a professional position to which they have no title either by education or ability. With reference to the second cause I have suggested, when public bodies, or private clients, ask an architect to design and carry out a work of which they describe the extent, and mistakenly expect it to be executed for an insufficient sum, it should be at once declined, and the reason stated, instead of being undertaken, as it often is, with the knowledge that there must be finally a large extra cost, which it may or may not be possible to attribute to changes of view on the part of the employer. Thus, and thus only, I think, would public confidence in architects' estimates arise, or be strengthened. In this matter I consider the employer, whether public or private, chiefly to blame. He has no right to name a sum as the cost to be incurred, in an entirely arbitrary manner, inasmuch as, unless it be a hopelessly unreasonable one, the architect has strong temptation to indulge in a fond hope that, by some means or other, he may be able to meet his client's wishes,—a hope in such cases rarely, of course, realised.

I deem it quite unnecessary, within these walls, to say one word as to the third reasen I have alluded to; but I think you will agree with me it sometimes exists, and therefore I felt bound to allude to it. When it is suggested it has only to be boldly challenged, and generally the accuser is happily ashamed of his own suspicion when plainly stated in terms intelligible to honest men.

In combating all the difficulties and discouragements to the prosecution of our noble profession to which I have alluded (though, perhaps, at too great length for your patience, not in undue reference to their importance), I think we have a power in this Institute, if only we will use it with united effort and all our might, that can do good to the public and ourselves. Already, amongst ourselves, the Institute has done, and is doing, a good work,—setting up a standard of professional purity; endeavouring to number in its ranks the best men of all countries; promoting good fellowship among professional rivals; endeavouring to compose differences when they arise; preserving some supervision over the buildings of the empire, whether modern or centuries old, in which we all feel pride; promoting study of the works of past architects by affording the use of our really fine library to our members, and in a variety of other ways; while to the Government and the public it is ready, in its corporate capacity, to be of real use whenever requested, and to devote time and ability of the highest order attainable to make our public works and public buildings creditable to their age, not only scientifically and constructionally, but so that they may be "a joy for ever" to those who come after. In some very few cases this aid has been asked, and has, I think, been efficiently rendered; but I could wish to see the profession, through this Institute, deemed by our public authorities a body whose opinion and advice it was felt necessary to ask for on all artistic or social questions involving the construction or æsthetic treatment of our public buildings or public improvements; and, further, that such opinion and advice, when obtained, should be deemed of sufficient value to abide by. I cannot avoid noting an illustration of what I have said by referring to several points in which one of the finest works of our times makes an architect sad,—I mean the Thames Embankment; and I have only to call your attention to the indirect approach to the Clock Tower, the neglect and part burial of York-gate, the absence of any attempt to connect the river front of Somerset House with the new Embankment road, the like absence of adaptation of the land arches of the bridges spanning the road to their new position, the omission of the once proposed new direct street to St. Paul's Cathedral, and other minor matters, to justify my remarks. Noble work as it is as a whole, in all the above and other matters it cannot be considered, æsthetically, so satisfactory as it might have been; and I do not hesitate to say that, in no other country than England would such a public work have been executed except with the assistance of an architectural public body like our own asked for officially and carefully attended to.

Did English architects take the position which they should do, and, I assert, could do, with credit to themselves and advantage to their clients, were they better understood and the value of their services better felt, we should not hear, as unhappily we often do now, the theory ventilated that Government and public bodies will do better to carry out works of more or less national importance under the sole direction of gentlemen connected with them as permanent officers, under the imposing appellation of "the Department," or "the Board," but whose salaries, being permanent, and leading to a life pension, are necessarily on so moderate a scale that their positions can only be acceptable to second or third rate men, whose training and antecedents cannot have fitted them to discharge the functions of true architects, and who would themselves be the first to confess that while they were under the necessity of doing any service their principals may require of them, they frequently feel their own incompetence to fulfil those services in the best way, and would gladly be relieved (and, indeed, have a right to be relieved, on grounds of public policy) from dealing with buildings where the best art and the most trained intelligence should be employed, for the credit as well as the art instruction of that public who finds the funds.

That there is an increasing desire on the part of the general public to see our great city take more creditable rank than heretofore architecturally among the capital cities of the world is, I think, clear, from the treatment of the buildings erected in the past few years along our new lines of thoroughfare. We need not wonder at this when we call to mind that in the history of the world, as regards architecture (especially civil and municipal architecture), its development was always mainly connected with the great centres of trade and commerce, as, for instance, in the Low Countries, and in Italy, when its Republics were traders, and most active traders, too. So, too, it was in our own country in past times. Witness the fragments, alas! now very few, that remain, showing the magnificence and love of art of our English merchant princes in the adornment of their residences in the city of London itself. Shall it not be so now in the present and our immediate future? Surely it only needs a race of architects worthy to direct the public taste, and, above all, it needs better artistic education among our traders and the public in general to appreciate really good work. I think, therefore, that Lord Mayor Cotton, at our recent Conference dinner, was not unjustified in the pardonable pride with which he referred to what, not only the City, but metropolitan London, has done in past and present times, and when he expressed some bright hopes for the future. Though, alas! we frequently find work in our streets of the lowest class of taste, and executed by evidently incompetent hands, we happily are able to find there also works of which no country need be ashamed. We may assume, then, that the public have a craving for something beyond the mere utilitarian brick fronts of 100 years ago. They are ready to have that craving directed into a right channel; and what would be more likely to induce a rich merchant, who proposed to occupy some conspicuous site in London, to do so creditably, than to have the evidence before him that those holding the highest official positions in the country recognised the duty, to their own and future generations, of leaving monuments behind them, the creations of, at any rate, the best architects of the day, instead of unknown and unjustified pretenders to that name, or of those who know that their names will not be handed down to posterity because they work for a Department, and who, therefore, miss the strongest incentive an artist can have to animate him to his best efforts?

You are aware that ere long a report may be expected on the scope, functions, and future action of the Institute, from a Special Committee of the Council and Past-Presidents and Vice-Presidents. I know the anxious care and the expenditure of valuable time that have been given by its members to what, I may truly say, will be the most important report ever placed before the Institute. I shall not of course forestall their special recommendations, but I venture to hope and believe that such recommendations will have for one of their main objects the realisation of the views I have expressed in this address. It has been frequently suggested that the members of the Institute should be distinguished by some diploma. Now you all know the difficulties in the way of this; some are real, some may be fanciful. For my part, I think such documents of little value, and that they are not often duly understood by the public, while the modesty of their possessors frequently prevents them being even known of. Whether, however, any such diploma is ever instituted or not, I would cut the knot of the difficulty at once, by an effort to enrol among our members all men of talent in the British Empire, members who shall invariably and only be those who will inflexibly uphold the honour and purity of the profession. The real diploma would then be, *position in this Institute*, and if it can only be felt among us that to enter this Society, and gradually though surely to attain, and when attained, to retain, a seat on the Council, was a thing to be coveted, the blue riband as it were of our profession, we shall have done much. When the youngest member among us shall feel, without envy, that in the honour of the older members he and all the members are honoured too, and when the older members who may thus have been placed on its Council shall think it well worth the labour of a life to have attained that honour, then depend upon it the public will give us honour and confidence too, and self-respect among ourselves will be the surest guarantee of respect from without.

It is the wish (one in which I cordially join)

that our Institute should be as its name imports, "The Royal Institute of British Architects," not as it now too much is "of Metropolitan Architects." Of course, we cannot shut our eyes to the tendency of many of the most distinguished among provincial architects to gravitate to London, and therefore acquire the latter designation; but it is also true, as many of us know, that there are at least as many architects who, from family or other reasons, do not choose to emigrate, and whose talent and originality displayed in works for our great provincial cities and in different parts of the country may put many of us to shame. Now I wish those men also to feel it an honour, I had almost said a necessity, to belong to us as the national representative body of their art. I believe but little inducement is needed to lead them to take this view; they are for the most part already loyally attached to this Institute, and only need to be shown how they can work with us more fully. These architects are always members,—and respected members,—of architectural societies in their own localities, and one suggestion I would venture to make to those local societies is, that it should become a yearly custom with each of them to ascertain which of their members wish to join us, or who really ought from their local distinction to do so. I believe few years would pass without some honourable additions being made to our body from all parts of the country. The same action might even be extended to those countries among our colonies or the United States where the English tongue is spoken and English architecture is more or less taken as a basis for the designs of their buildings; and I may here allude to the evidence we had at the last Conference that our provincial and foreign brethren do think a personal communication from time to time with their metropolitan brethren a sufficient inducement to sacrifice time and money to come to us in London. It was no small pleasure to me (then new to the office in which you have placed me) to welcome a larger attendance at the Conference meetings and at the concluding dinner than there had been at any previous Conference, and it is quite unnecessary to dilate on the benefits to us all that such meetings confer.

Lastly, if my hopes should ever be realised and the Institute made personally strong, I cannot doubt that it would also be strong financially, and we may then be able to carry out those artistic and other developments of which we can only dream at present. We may be able to grant travelling exhibitions, accompanied by medals, of which the gainers shall be proud all their lives. We may largely extend our library till it is the most perfect professional library in the world.* We might possibly be able to initiate and conduct an annual exhibition of the works of architecture, truly a national one, and altogether beyond the feeble annual display of the architectural room in the Royal Academy. We might even have a permanent gallery of drawings given by our members or distinguished foreign architects of their most important works, and thus form a series of which the historical no less than the practical use would be great. We might some day (I hope that may not be very distant) be housed in premises of our own. Our brethren the civil engineers have done this, and having provided for a very large expenditure in doing it, have now means, did they wish it, to do it over again. I am aware that I have been saying few, if any, new things, and only repeating the wishes and hopes of those who have gone before me; but as few good and great objects have ever been realised except by perseveringly keeping them in view, so I hope I have not wasted your time in recapitulating them,—that we shall not give up our objects in despair, but only see in every delay and every obstacle a reason for that dogged persistence which is said to be characteristic of Englishmen, and which in the end is almost sure to secure success.

A "Church House" at Barming, Kent.—On the 1st inst. a Church House was opened in the parish of Barming, intended for various parochial purposes. It is built of ragstone, with a roof of red tile. An open porch, surmounted by an oaken cross, looks out on the little green. The house consists of two rooms, so arranged that they can be used separately or together. It has been designed by Mr. H. Bensted, architect, the work having been carried out by Mr. J. Elmore and Mr. T. Simmonds, of Maidstone.

* The library of the Institute now contains about 3,000 volumes.

OLD LONDON AND THE LORD MAYOR'S SHOW.

There are few things more notable than the growth of great cities, and nothing certainly more remarkable about such growth than the changes which take place insensibly, year by year, in the character of their architecture. The old city, it is true, does not altogether disappear, for the lines of street ways, more or less, are retained, so that we may pass along a really quite modern town of to-day, and yet tread in the very footsteps of those who founded and built up the older city so many generations back; and not only this, but in spite of so many changes, and sometimes, though not always, social "improvements," and ways of life, there still go on, and are occasionally visible, not a few of the ways and manners of a far distant and perhaps well-nigh forgotten age. Huge London city, as it was and is, and the annually still going on Lord Mayor's Show, will illustrate what we have said in a way not a little remarkable and instructive. Well may we say,—he that hath eyes to see let him see, and look around; and then, go as deeply into the matter as he will, or can, and it will be found that there is here so ample a field for thought and wonder that the difficulty is where to stop, and how best to avoid roaming away into what might seem matter somewhat remote from the main subject itself. To thoroughly realise this passing away, and yet the retaining, of the old, and to be conscious, as we needs must be, of the new, and even present, we need but to look with attention at the sketch map of London left us so fortunately by Joannes Norden, in the year of grace 1593, and to compare it with a map of London as plotted and engraved for us to-day. Norden's map is much easier of comprehension than the modern map, for you may see in it the boundaries of the City, and where it begins and ends, while in the modern map of to-day it is quite impossible to find either the beginnings or the endings of mighty London. In the London of 1596, when Her Most Gracious Majesty Queen Elizabeth made a royal entry, with great and picturesque show, into London, her loyal city, there might have been seen a really artistic and thoroughly harmonious scene. All things went to help the show, and to make a picture af it. The very street architecture, and the quaint character of the houses, and their very irregularity, and even what would now be thought their out-of-repair condition, all went to make it up. Then, again, the quaint and heavy carriage and horse trappings, and the costume of the time, which would almost seem to have been designed with an eye to suit the street architecture, must have made up a "show" by the side of which our royal processions and Lord Mayors' shows, however much money may be spent on them, make, and can but make, a poor display.

It is in the looking back to such a scene as this that we may get, though perhaps somewhat dimly, at a notion of Fleet-street and the Strand, and Whitehall, as they once were, and the mental view thus obtained will be found right full of wonders, artistic and architectural, and even human. The whole is full of contrasts with the present: all things and ideas were different. In the first place, there were no "restorations" anywhere. A building out of use was pulled down forthwith, and a new one put up in its place, and in the prevailing style of the time; and a quite newly-built house or other building must have looked somewhat strange among the surrounding *old* houses. A walk round and through the London of Shakspeare, could such now-a-days be made, would startle us not a little, as would doubtless the comparative emptiness of the streets, the small amount of carriage traffic, and perhaps more than all, the quiet and silence of the town. The Strand and Fleet-street of the year 1593, and of the year 1876, though the line of way is the same, must contrast with each other, either on an ordinary day or on occasion of a Lord Mayor's Show, on a 9th of November. And when we come to define the word "progress," now in all mouths, and as here visible, we might well ask at times what it does really mean and imply. One of the chief signs of progress, as we are assured on all hands, and from numberless lecture-tables, is the constant presence and sight of *art*, *i.e.*, living and ever active art, in our mind's eye, and all about us; and if this be so, and if the picturesque in the new streets and highways of a city be an element in it, which it is, then indeed there can be no manner of doubt that the men, women, and children, whether in or out of school, of Queen Bess's day, were much nearer the ultimatum of progress than we of Queen Victoria's day can possibly pretend to be. A quiet walk up and down Fleet-street and the Strand will soon make this evident enough. We might here afford some novel details, but had better, perhaps, forbear, for they would lead us into somewhat deep and difficult matters.

The quaint map of London which J. Norden, of the year 1593, has left us (and thanks to him for it), is worth attentive study, for in it we see very many of the things which have made this now huge metropolis so famous. There is the Tower of London,—and here we might ask why are the public shut out from the river side of it? This is a late "improvement," and would seem to be a quite needless one, for the Tower is now converted into little else than a military warehouse or storehouse, and the purpose for which it was built is all but lost altogether. A long lament might be said over the Tower, for it has gone, a good deal of it, through a fearful process. Where is the Traitors' Gate, of historic renown, now? And where is the portcullis which closed it at the bottom of the stairs washed by the river, and up which so many have gone to their final doom? The Traitors' Gate was a part of English history in stone, why was it destroyed? The White Tower again, what a mercy it is that it has not been improved away, and the ground built upon! It is all but inaccessible, it being filled with little better than military lumber, for which surely a better and more suitable and useful place might be found, and the whole building opened to view now and then for those who like to dream in such places. It is a somewhat singular circumstance, and is worth noting, that the only tower left standing as it was built, with its rough walling, within the Tower precincts, besides the White Tower, is the Bell Tower, and in Windsor Castle that the only one remaining as originally built and unrestored is also called the "Bell Tower,"—doubtless accident this, but worth note.

The Tower "posterne" took you by the side of the City wall to Aldgate, and then to Bishopesgate, More-gate, Creple-gate, Alders-gate, Ludgate, and thence to the silent highway, the river Thamys. This line of way marked out the size of Roman London, the town of 1593, extending somewhat beyond these narrow bounds and outside the walls, the map only showing as far as Temple-bar, and a few yards to the west of it. Through London, from east to west, and starting again from the Tower posterne, a right quaint and picture-forming way must it have been down Eastcheape to "Paules," and so to Ludgate, London stone being passed on the way. From north to south starting from Bishopesgate, down Bishopesgate-street to Eastcheape, to —after, may be, the Tower itself—the most far-famed of all, London Bridge, and over it to Southwarke, and then, turning to the right, past Winchester House, to Bankes-side, we find ourselves close to the Beare-house, and the Play-house, the Rose Play-house, in which, and others like it, at Black-friers, and Shoreditche, Shakspeare must have both worked and "played" many and many a time; and he must not only have day by day passed along the quaint streets named and depicted on this map, but must needs have lived in one of them. How many times must he have crossed London Bridge, and paused to look through the openings between the houses on it, at the then-rapid flood through the narrow arches of the Gothic bridge, and must have needs been attracted by the picturesqueness of the narrow roadway, with gable-ended houses on either side of it! Did this "influence" help or hinder him in his work, we might in some wonder ask, and would he have liked better to pass over our now improved bridge, wherein utility has had it all its own way, and where most surely no poetical imaginings have stood in the way to hinder its strictly business arrangement and planning? Deep questions these, and Will. Shakspeare himself might have been puzzled to analyse and solve them. Shakspeare could not have written his plays in modern London, as we now read them—in antique type!

We might follow the immortal play-writer into yet stranger ways and places, and tell a little of his way of life, as it needs *must* have been day by day; and, may be, say a word on what he thought of lordly processions and "shows," as they passed along through the ill-kept and darkened streets of bygone London. But there is one thing he did see, but which we cannot in our improving city,—the sombre natural colouring which comes over all things if left to nature's influences only, and to which the

Titians and Turners, with all their painting, can but approximate.

The first Napoleon was not much given to compliments, and he distinctly told us that we were nought "but a nation of shopkeepers"; and it is certainly to be feared that the trading instinct now masters all others in the long run. But, nevertheless, it has at times a hard battle of it. A "Lord Mayor's Show," though but once a year, stops business in certain quarters not a little, and the tendency of the time, utilitarian as it is, has sought, and still seeks, to do away with it. But it must die hard, and there is even a tendency to not only perpetuate it, but to make more of it, and to *add*, as we have seen, to its artistic character and interest. Indeed, to speak generally, it is somewhat remarkable that there is a tendency to *return* to some of the old world's ways,—ways which have been all but lost entirely. The "Halloween" has but just been celebrated at Balmoral, in the very presence of Royalty, and the effigies of "witches and warlocks" were tossed into the flames as of old. And what is, perhaps, as strange, the "curfew," in some few places still tolls the "knell of parting day," and efforts are being made here and there to revive it. Why not? It is a touching reminder of past ways. Improvements are all around us, though in the Strand the church clock of St. Clement Danes strikes the hours *twice* over; so you must, at least, know the time of day and night; and, what is more, it has a peal of bells, which, after the clock striking, *plays a tune*, but what that is, or can be, who shall say?

It should be noted, by the way, that the most interesting map of Old London spoken of, though called "Norden's Map," was doubtless drawn, and certainly engraved, by Peiter Vanden Keere, 1593.

ROYAL INSTITUTE OF BRITISH ARCHITECTS.

The first ordinary general meeting of this Institute for Session 1876-77 was held on Monday evening last at Conduit-street, Mr. Charles Barry, president, in the chair. There was a good attendance of London and provincial members.

Mr. Thomas Semsncke Archer, of Gresham-buildings, E.C., was balloted for and duly elected as an Associate. Twelve nominations for membership were read, the Chairman referring with satisfaction to the fact that five of the twelve were from the provinces.

Several valuable donations to the library were announced, and the Secretary (Mr. C. L. Eastlake) stated that during the recess twenty-six works had been purchased by order of the Library Committee, some of the works so purchased coming from the libraries of Sir Digby Wyatt and the late Mr. Thomas Bellamy.

The President announced that the "Scott Portrait Fund," which it was hoped would ultimately reach the sum of 300*l*., already amounted to 240*l*. It was thought that for the first-named sum the Institute would be able to secure a portrait of Sir Gilbert Scott which would be not only a pleasing memento of his presidency, but an admirable work of art.

The President then proceeded to deliver his inaugural address, which will be found on another page.

Sir Gilbert Scott begged leave to propose a vote of thanks to the President for his admirable address, which had touched upon almost every topic that bore upon the present circumstances of the architectural profession. Mr. Barry had preached a sermon of a kind which, even from pulpits, was too infrequently heard. He had stuck to questions of morality rather than to opinions and doctrines, and he (Sir Gilbert) heartily wished that the code of morals laid down by the President might be thoroughly appreciated and acted upon. The President had told them how they ought to endeavour to raise their profession in the eyes of the public. He (Sir Gilbert) was quite sure that at no previous period had such advice been more necessary than at present, when we heard that the Government contemplated giving up the employment of architects, and substituting that of officials and clerks. If this were acted on, the highest prizes of our profession would be made over to others; a course inconsistent with the due appreciation of art by our governors. Passing to another subject, he thanked the President, in the name of the Institute, for the generous and appreciative notices which he had given of some of their deceased members. Too little had, perhaps, been done by the Institute in putting on record the works and labours of those associated with it, and he hoped that henceforth this would form an essential feature of presidential addresses. With reference to Mr. Henry Roberts, with whom he had in early life been connected, he would say that a more honourable, excellent, and high-minded man he never knew.

Professor Kerr, in seconding the motion, said that, in common with others, he felt somewhat alarmed at the information conveyed to the meeting by Sir Gilbert Scott, viz., that in future the services of professional architects would be dispensed with in connexion with our public buildings, and that only clerks were to be employed. He believed that the Imperial Government of the British nation and its dependencies were quite capable of taking such a course, judging by what had occurred during the past few years. He hoped, however, that it might not be true; if it were true, the Government, to be consistent, should go a little farther, and, dispensing with lawyers, employ lawyers' clerks; dispensing with doctors, they might employ, perhaps, chemists' assistants; and, dispensing with generals and admirals for our army and navy, a large field would be open for amateurs. It was quite as absurd to suppose that good public buildings could be built and maintained without the aid of specially-trained architects as to suppose that men would excel in Law, Medicine, or Arms, without special education. Looking seriously at the purport of Sir Gilbert Scott's communication, it was impossible not to agree with the President in the apprehension that by some means, or owing to some reason or other, a suspicion had got into the minds of the Government with regard to architects. They in that room, who knew each other well, and who knew their work, knew that that suspicion was unfounded. True, there might be matters on the surface of things which led people to come to conclusions unfavourable to the architectural profession. Unfortunately, there were men in the profession ever ready to disparage each other's work on the score of want of professional skill, and therefore too great stress could not be laid upon the principle enunciated by the President, that if architects were true to each other,—he would not say true to themselves, he would take higher ground than that,—they must inevitably in course of time establish that confidence in them in the public mind which other professions enjoyed. He would not say that distrust of the architectural profession existed throughout the country, but he would say that so far as it did exist it might be counteracted by architects being true to each other. He was afraid that they were not a united profession, but it had been the policy of the Institute to make the attainment of unity almost its paramount object. The feeling of the Institute had always been that if a number of men who were honest would but lay their heads together in their honesty, and manifest before the public of this (on the whole) honest country, that which they professed to be able to do in the service of the public,—if they would manifest their qualifications to perform the public work, it was impossible that the public would not, sooner or later,—and rather sooner than later,—recognise the justness of their claims. If, then, they were suffering from mistaken prejudices, the one remedy was to take a common stand on high ground. In conclusion, the Professor congratulated the chairman upon occupying the presidential chair of the Institute, and upon having delivered an address which was practical from beginning to end.

The vote of thanks was carried by acclamation, and the proceedings terminated with the announcement that the next meeting would be held on the 20th inst.

The Portland Stone Trade.—The *Dorset County Express* says that the Portland stone trade would have been still more brisk lately but for the comparative scarcity of railway trucks. The merchants' (stone) railway has been almost blocked for want of these trucks for a month past, but things have been a little easier within the last week. A leading member of the trade has complained that they have had scarcely enough to keep one firm going on the average; but there are enough orders to make trade brisker than it has been for the two month previous to the last. The new Law Courts in London are still absorbing the Portland stone fast, and are likely to do so for three years and a half or four years, if the London men are pleased with the supply.

THE FRENCH GALLERY.

The twenty-fourth winter exhibition of cabinet pictures at Mr. Wallis's Gallery, now open, is a good one, and has some points of interest. Among them is the appearance of a painter new to this exhibition-room, M. Gierymski, whose comparatively large picture of "The Trial Scene from the 'Merchant of Venice'" (109) occupies, deservedly, the central position at the top of the room. The work is a very unusual one to see from the hand of a modern artist; it is evidently an emulation of the Venetian School, and recals in motive and in colour Giorgione to a considerable extent; and, like one or two compositions of that painter, is distinctively decorative in character. It is a long painting, showing the interior of the Hall of Justice, the marble columns and inlaid wall of which form an architectural background to the whole, the architectural detail admirably finished in regard to drawing, surface and harmony of colour, but certainly too hard and pronounced to keep its proper place behind the figures. These are spread out in a long line, in a somewhat (apparently intentionally) artificial manner; the Duke and "magnificoes" on the left; before the group Shylock on one knee presenting the bond, Portia and Nerissa on either side of him; behind comes the group of Antonio, Bassanio, and Gratiano, and the "composition" (for such in every sense it is) is carried on to the right by other figures more or less interested in the proceedings. The figure of Shylock is original in conception, and certainly differing from the conventional ideal of the "currish Jew." Portia is a figure well conceived, standing meditatively with her doctor's gown folded close around her; Nerissa, with a large bulk of papers bearing on the case of "Shylock *v.* Antonio," sits in the foreground, enveloped in a green mantle, which is a very valuable element in the total effect of colour. The other figures want character, and seem too little in earnest, and there is no doubt that the real life of the scene is sacrificed to decorative effect; but for all that the picture is worth looking at, as at least a remarkable instance of the revival of an old manner with some modifications. Next to this in interest we should place "The Knitting-School" (49), by T. Spring, as realistic as the last-named work is the reverse, but not over-laboured: it is very broad and free in style, and each of the little learners has her own distinct manner and character; we would notice especially the anxious, attentive face of the little girl who is listening to the criticism of the teacher, and the attitudes and expressions of the group on the bench in front, of whom the centre one is indulging in a broad and very mischievous smile at some whispered naughtiness of her companion. Every figure, however, is a study, and the work raises further the reputation of which the painter has already laid the foundation by his former works exhibited here. Looking round at the other leading figure subjects, we notice Mr. Dicksee's large "Cleopatra" (19) chiefly for the admirable drawing and foreshortening of the arms; the colouring is hard, though brilliant, and the face might belong to any Eastern model of ordinary good looks. On either side of this, two works by Miss Hilda Montalba, "A Study" and "Fishing" (4, 23), introduce us to another new name here, and pleasantly; the first is a half-length of a pretty girl in a dark dress, painted with much freedom and force; the other is a landscape of that undefined and *spirituel* style of handling which is to be traced to the influence of certain French artists; in the foreground is a boat with two figures, the seated one very graceful and suggestive, the standing one totally destitute of substantiality, a bundle of clothes without a figure in it,—but the painter has the feeling of an artist, in spite of this lapse. Moreau's "Winter" (40), a very old couple cowering over a stove, has a certain pathos, though not remarkable in execution. "The Fortune Teller" (24), by Seignac, is a very pleasing work, but again somewhat below what it might have been in point of expression and manner in the figures; the colouring is very harmonious. After that we must step on a little way to No. 76, "The Reprimand," administered by a benevolent-looking old priest, seated at a table, to two pretty Spanish girls, at the instance of a most forbidding old woman, whose sour face is well contrasted with the expression of the meekest of the two offenders, who bows her head down in a very contrite manner; this picture is interesting, as showing that its author, Mr. Burgess, is getting beyond that mere commonplace and picture-making style which was all

that his works used to attain to. Béraud's "Avenue de Neuilly" (119) is a picture very cleverly concocted out of very unpromising materials, as to colour especially; the costumes of "Les Anglaises" in the foreground are skilfully used to half blend with and half break up the mass of nondescript grey of the flagged pavement. Meissonier has an admirable single figure, the "Traveller" (191), a booted semi-military personage of doubtful antecedents who has appeared on his canvas several times of late; and Mr. Long exhibits a life-size three-quarter figure under the name of "Fanchette" (170), with some power in the head, and a want of modelling in the arm. Among the small things which are often so attractive in this gallery are one or two of Chevilliard's satirical studies of ecclesiastics, not quite so good as usual; Kauffmann is capital in his small study of an odious old boor counting out "Die Rechnung" (25), and in some other pieces of the same class; Palmaroli's sketch of a young lady under the title "Dolce far Niente" (45) has brilliancy and ease of manner; Pasini's "Scene in Constantinople" (58) is one of those little corners of Eastern street view which he paints so solidly and effectively; Knaus's "On Mischief Bent" (192) is a most clever study of the head of a roguish *gamin;* and the name of C. Haag is attached to several capital bits of child-life, of which the "Scrap-book" (176) is perhaps the best.

Among landscapes there is rather a good average than any remarkable work; the two paintings by Mesdag, illustrating "The Rescue," the putting off and return of the life-boat at Scheveningen (54, 69), form a very good pair of landscapes, if one may so speak, the first being the best; the groups on the shore are very carefully studied also. Weber's "Old Pier at Flushing" (31) is a picturesque subject, very effectively treated; it reminded us of a line in Matthew Arnold's poems,—

"The swinging waters and the cluster'd pier,"

for the tops of the uprights which sustain the pier form most curious groups and clusters jumbled together like the Giant's Causeway imitated in wood; the water may be a little mannered in treatment. Windmaier's small scenes, especially "A Coming Storm" (15), are full of the true sentiment of landscape art; and a very admirable and truly artist-like work is that of Mr. S. R. Percy "On the Surrey Hills" (71), notable for its unity of feeling and breadth of handling, and the fine painting of the sky. "On a Surrey Common" (88), by R. Gallon, and Gabriel's "Dutch Homestead" (165) are worth mention. Miss Clara Montalba is wasting her brilliant talents in painting as she does in "A Canal, Venice" (180); the tone of the buildings is rich and fine, but nothing is finished, and the treatment of the water, though telling, has now become a kind of trick of the artist. We might apply to her the criticism mentioned by Goldsmith, that "the picture would have been better if the painter had taken more pains," for Miss Montalba has gifts which should serve her better than in this.

THE HISTORY OF GAS-LIGHTING.

Gas has become so familiar to the present generation in our streets and theatres, in our manufactories and dwelling-houses, that it requires some effort of the imagination to conceive the condition of a big city when oil-lamps, few and far between, served but to reveal the universal gloom, and respectable citizens found their way home after dark by the glare of smoky torch or feeble flickering of a lamp. It is a rare thing nowadays to see those gaunt extinguishers with which our grandfathers put out their lights on reaching safely their own door-step. They are passing away into the limbo of a forgotten age, and yet it is barely seventy years ago since the enthusiast Winsor startled London by lighting one side of Pall-mall with the mysterious gas, which, he pretended, he alone knew how to develop and control.

An invisible agent has always something of awe and mystery for the ignorant. The sacred fires of Central Asia were caused by the evolution of combustible gases from fossil coals; the unseen vapours issuing from the ground, once lighted, kept up the perpetual flame which seemed divine. Such natural gasworks exist in many quarters of the globe. In the Szlatina salt-mine in Hungary, on the shores of the Caspian, in the State of New York, and in the Chinese Empire, there exist bituminous deposits which are continually giving off illuminating gas. The first account of inflammable air in England was given by Thomas Shirley, who visited a burning spring near Wigan in 1658. The gas was bubbling up through some ditch-water, giving it the appearance of a boiling liquid throwing off inflammable vapour. Shirley, after satisfying himself that the water was *cold,* demonstrated to the bystanders that the flame was due to a combustible gas, by draining off the water from the ditch, and lighting the gas as it issued from a crevice in the ground. This scientific explanation bore no immediate fruit, and we hear no more of gas till 1733, when Sir James Lowther communicated a paper to the Royal Society on the "Inflammable Air" met with in a coal-shaft near Whitehaven at a depth of forty-two fathoms. Very soon afterwards the Rev. John Clayton succeeded in producing illuminating gas artificially from coal. Attracted, like Shirley, to a burning spring near Wigan, he dug down into the soil till he came to a shaley coal, the air round which caught fire on bringing a lighted candle near. He collected some of this coal, and distilled it in a retort. In the Philosophical Transactions of 1739 he thus records his first observations on artificial coal gas:—"At first there came over only phlegm, afterwards a black oil, and then likewise a spirit arose which I could no ways condense; but it forced my lute and broke my glasses. Once, when it had forced my lute, coming close thereto, in order to try to repair it, I observed that the spirit which issued out caught fire at the flame of the candle, and continued burning with violence as it issued out in a stream, which I blew out and lighted again alternately several times. I then had a mind to try if I could save any of this spirit, in order to which I took a turbinated receiver, and putting a candle to the pipe of a receiver whilst the spirit arose, I observed that it catched flame, and continued burning at the end of the pipe, though you could not discern what fed the flame. I then blew it out and lighted it several times; after which I fixed a bladder, squeezed and void of air, to the pipe of the receiver; the oil and phlegm descended into the receiver, but the spirit, still ascending, blew up the bladder. I then filled a good many bladders therewith, and might have filled an inconceivable number more, for the spirit continued to rise for several hours, and filled the bladders almost as fast as a man could have blown them with his mouth, and yet the quantity of coal distilled was inconsiderable. I kept this spirit in the bladders a considerable time, and endeavoured several ways to condense it, but in vain; and when I had a mind to divert strangers or friends, I have frequently taken one of these bladders and pricked a hole therein with a pin, and compressing gently the bladder near the flame of a candle till it once took fire, it would then continue flaming till all the spirit was compressed out of the bladder; which was the more surprising, because no one could discern any difference in the appearance between these bladders and those which are filled with common air."

Though the possibility of producing a permanent illuminating gas was thus established, yet no one dreamt of applying the discovery to practical use. For fifty years this inflammable air was nothing but a scientific curiosity, one of the marvels which serve to enliven a lecture, and shed fascination on philosophy. To William Murdoch belongs the real credit of applying gas as an illuminating agent.

In the year 1792 Murdoch lighted his house and offices at Redruth, in Cornwall, with gas, which he manufactured from coal; and five years later, on removing to Scotland, he lighted up his premises at Old Cumnock, in Ayrshire, in the same manner. In 1798 Murdoch erected a retort at the foundry of Boulton & Watt, at Birmingham, and in March, 1802, when the town was illuminated for the peace of Amiens, he exhibited at either end of the building a Bengal light burning coal gas. In the following year the foundry was lighted all over. The gas was led from the retort without purification to a gasholder containing some 300 ft., whence it passed by copper tubes to cock-spur burners. The first retorts used were upright and cylindrical, but it was found that the coal at the lower end, being heated too quickly, became incrusted with a layer of carbon, which prevented the heat from penetrating the mass within. Horizontal retorts were then adopted, at first cylindrical, and afterwards ⌂ shaped, and this form and manner of setting are still most generally observed. In 1805 Murdoch lighted the great cotton-mills of Phillips & Lee, of Salford. To prevent the pipes becoming choked with tar, Murdoch placed tar-wells along the whole line of pipes, into which the condensed hydrocarbons drained, but no other means of purification were adopted. From a report read before the Royal Society in February of that year, the results of the trial appeared very satisfactory; the interest on outlay, and the cost of coal for one year, being 600*l.*, while the same degree of light with candles could only be obtained at a cost of 2,000*l.*

Though coal-gas was found to give a light peculiarly soft and clear, and to burn with the steady flame, especially in manufactories, its introduction to dwelling-houses was hindered by the unpleasant effluvium from the products of combustion. When burnt in close rooms coal-gas caused depressing headaches, and in some cases acted injuriously on the lungs. Samuel Clegg, a pupil of Messrs. Boulton & Watt, was the first to attempt purification of gas by means of lime. The pipe from the retort was caused to dip beneath water, holding lime in suspension, at the bottom of the gas-holder, and a horizontal paddle was made to revolve under the water to prevent the suspended lime from settling. By this means Clegg succeeded in removing the obnoxious sulphuretted hydrogen, without acting on the light-giving carburetted hydrogen, but the difficulty of removing the spent lime from the gas-holder led him to make a separate lime purifier, through which the gas passed on its way to the gas-holder. This separate purifier was set up at Stonyhurst College, in Lancashire, where Clegg received every facility for conducting his experiments. The plan was simple and effectual, and for many years was the only method in use for freeing gas from sulphur.

While Murdoch and Clegg were busy in the North, lighting manufactories, perfecting their apparatus, and feeling their way surely, by trial and experiment, to higher results, an enthusiast in London was endeavouring to excite attention towards the "marvellous gas." Mr. Winsor set himself to his task *con amore.* With little scientific knowledge and less mechanical skill, he contrived to mystify and interest the public by the new light. French writers have accorded to their countryman, Philippe Lebon, the merit of first introducing gas for illumination. According to some authors, Lebon patented his "thermo-lampa" in 1786, an apparatus for warming dwelling-houses, by burning wood or coal, and at the same time for lighting them with the gases given off. This crude idea was really patented in 1799, seven years after Murdoch had prepared coal-gas to light his premises in Cornwall. In 1802 Lebon had so far improved his apparatus that he gave an exhibition of gas-lighting in a house in Paris. The fame of this exhibition appears to have reached Winsor, then at Frankfurt. He went to Paris, and, struck by the invention, offered Lebon 100 louis d'or for his secret. Lebon refused to disclose his process unless the purchase of 200 of his stoves was guaranteed. Winsor, unable to comply with this demand, left Paris and began experimenting on his own account. Whether he heard of Murdoch's method is uncertain, but the following winter he exhibited gaslights before the Duke of Brunswick and his court. In 1804 he came to London and began a gas agitation. He took the Lyceum Theatre and lectured on gas; he lighted jets of it in various parts of the building, and impressed his audience with the purity and clearness of the light, maintaining meanwhile strict secrecy as to the mode of production and conveyance of the gas. His lecture became a favourite show, and Winsor himself notorious by advertisement and puff. For three years he continued to amuse and astonish his hearers, but at last hit upon the really original idea of lighting some lamps in the public street, and letting the world judge for itself. Accordingly in 1807 he removed his apparatus to a house in Pall Mall, on the site of the present Carlton Club, and lighted a few lamps on one side of the street, the other side being illuminated by the oil-lamps then in use. This experiment was an undoubted success, and, emboldened by the result, Winsor endeavoured to start a company to carry out his scheme on a large scale. In 1809 an application was made to Parliament for an Act to incorporate "The London and Westminster Chartered Gas-light and Coke Company," but the plan for thus lighting even public thoroughfares with gas was condemned by the highest scientific men of the day, and the introduction of gas into dwelling-houses was denounced as dangerous, injurious, and impossible. Watt and Murdoch

opposed the Bill, on the ground that the latter, being the first to apply coal-gas as an illuminating agent, had the exclusive right of its application. These objections, backed by the ignorance of engineering and chemistry displayed by the promoters, caused the rejection of the Bill. But Winsor never lost heart. Next year he renewed his application, and after a severe struggle and great expense an Act was obtained, authorising his Majesty to grant a charter within three years to a company, for the purpose of lighting a small portion of the metropolis with inflammable gas, and under the powers of that Act the present Chartered Gas-light and Coke Company at Westminster, the earliest of the London gas companies, was established. With his way clear, Winsor at once began the work of construction, and was assisted by a chemist named Accum, a dealer in the marvellous after his own heart. Their united attempts ended in a miserable failure. Time and money were alike squandered, and the shareholders were for giving up the enterprise in despair. At this juncture Winsor obtained a competent engineer, and the fortunes of the Chartered Company began slowly to revive.

Clegg had been busy among the cotton-mills of Manchester; he had invented and brought into use the hydraulic main, had improved the mouth-pieces of the retorts, and introduced an apparatus for regulating the pressure in the gas-holders. In 1812 he came to London and lighted Ackerman's shop in the Strand. The success of his method, which attracted the greatest attention among all classes, procured him the appointment of Engineer-in-Chief to the Chartered Company. Under the new *régime* the works at Peter-street—then a swampy marsh, frequently overflowed by the Thames—were begun in 1813, and before the end of the year Clegg had overcome the enormous difficulties of his task. On the 31st of December of the same year Westminster Bridge was lighted with gas, and so great was the curiosity roused that the bridge became, while the novelty lasted, a fashionable promenade. It is recorded by his son that Clegg himself had to light the lamps for the first few nights, in consequence of the lamp-lighters "striking" through fear of the gas. The parish of St. Margaret, Westminster, next applied to have their streets thus lighted, and in April, 1814, the new gas-lights replaced the old oil lamps.

Though the Chartered Company was thus fairly started on its way by the exertions and skill of its engineer, enormous difficulties had to be overcome before the use of gas became general enough to allow the shareholders a dividend on their capital. It is hard to conceive the prejudice felt on all sides against the new undertaking. People imagined the gaspipes to be dangerously hot, and when the House of Commons was lighted with gas, the architect insisted on the main being placed several inches from the wall lest it should catch fire. The insurance companies refused to insure buildings supplied with the inflammable vapour,—a prejudice which Clegg overcame by inventing a self-acting burner so contrived as to shut off the supply of gas, by the contraction of a small brass rod, if the flame were accidentally extinguished. This complicated burner never came into use; but it attained the object of its inventor. The insurance companies withdrew their objections. But people shrank from the danger of gas and gasworks. When a committee of the Royal Society, headed by Sir Joseph Banks, visited the Westminster works to report on the apparatus, some of the members expressed alarm lest the gas-holder should happen to leak, and its contents catch fire and blow up. Whereupon Clegg, calling for a pickaxe and a candle, dashed a hole into the side of the holder and set fire to the issuing gas. No one, of course, was any the worse; but the committee strongly urged the Government to compel the company to erect no gas-holder containing over 6,000 cubic feet, and to insist that each holder should be surrounded by a massive brick building. The erection of several small gas-holders instead of one large one may have been a measure of safety, but to surround the holders with massive buildings was like putting gunpowder into a shell: if an explosion did occur, the more the explosive was confined the worse for the neighbourhood. Yet for several years gas-holders were safely secured within substantial houses, and inconvenience and expense multiplied. Nor were the difficulties the Company had to meet only in men's minds. The whole *matériel* of a public gas supply was wanting. A fresh trade had to be learnt, a new manufacture devised and carried out. So great was the difficulty in procuring service-pipes that old musket-barrels were employed, screwed one to the other, and a patent was even taken out for making gas-pipes out of wood and paper! No skilled labour could be obtained, workmen had to be specially trained. The price of stop-cocks and burners was almost prohibitive. The meter was not yet invented, and gas had to be sold on an estimate. By such obstacles was the public use of gas impeded in the first years of the young Company, and no dividend was forthcoming to keep up the spirits of its promoters.

Little by little the ground was cleared. Machinery was contrived for making and welding pipes. Burners were manufactured in numbers sufficient to bring down their price to the public need. A meter was devised by Clegg to be used in the consumer's house; a meter, which, improved by Malam and afterwards by Crossly, became almost universal. After five years the Chartered Company declared their first dividend, paying the shareholders 6 per cent. for the year 1817. In the same year, emboldened by the success of the Chartered, another company was incorporated for lighting the City. In 1821 the Imperial Company was incorporated for the object of lighting all London, outside the City, to the north of Oxford-street and Holborn. Then followed the Ratcliff and the Phœnix, though the latter, under the name of the "South London," had begun operations in 1814. These companies, though incorporated to supply particular districts, were not granted the exclusive privilege of lighting the area assigned to them; they were unrestricted as to the price they might charge for gas, and as to the dividend they might pay their shareholders. They were bound neither to supply gas of a particular quality, nor to furnish a supply at all unless they pleased. Fifteen shillings for 1,000 cubic feet was the price charged when meters first came into use.

In 1822 a Commission, headed by Sir William Congreve, was appointed to inquire into the London gas-supply. They strongly advised the division of the metropolis into districts, to be supplied exclusively by one company. But the desire of the public for free competition was too strong, and, notwithstanding the recommendation of the Commission, Parliament gave their sanction to the formation of new companies to compete, in their several districts, with the old. Speculators were found everywhere ready to invest their money in what they considered promising ventures. Bodies of consumers co-operated with local vestries, who contracted to supply the public lamps at low rates. The Independent Company was launched in 1829, to compete with the Imperial; the Equitable Company, in 1831, to compete with the Chartered; in 1844 the London Company was started to compete with the Imperial, the Equitable, and the Chartered; the Great Central, in 1848, to compete with the City Companies; and the Surrey Consumers, in 1854, to compete with the older companies on the south side of the Thames. The Western Company, too, though not incorporated by Act of Parliament, was permitted by the several vestries to compete with the other companies supplying the West End. For nearly thirty years there was no lack of competition, but the public hardly reaped the full benefit of the free trade in gas. True, the price of gas fell, and the severe rivalry of companies may have done much towards economy of management. But it is doubtful whether the public were better or more cheaply served than they would have been without the competition. Many of the streets were occupied by the mains of no less than four different companies, each of which required to open the roads to repair or make connexions with their respective mains. The workmen would confuse the different pipes, and one company would lay on gas from another company's main. In case of leakage each company would pull up the road on its own account, so that, among them, the thoroughfares were seldom clear. But the worse result of the system arose from the fact that in a district of severe competition, the expenses of four mains had been incurred where one would have sufficed for the wants of the consumers. The returns on the total capital expended could be no more than would have accrued to a single company with one-fourth that capital. Supposing the receipts equal, each company got one-fourth the per centage it might have done had it supplied a district of its own. Such a system could not last. There was nothing to compel the companies to ruin themselves for the sake of the public. A tradesman will sometimes sell at a sacrifice for the sake of ruining a rival over the way, fully intending, when the enemy has closed his shop, to recoup himself out of the pockets of the public; but if his rival prove a tougher foe than he counted on, the two quietly make it up and continue business with legitimate profits. In 1857 the different companies agreed to keep themselves to particular districts. London was again divided into separate areas, and in consequence of the increased economy in gas-distribution the cost has been considerably reduced.

But the cry of "no monopoly" was soon heard once more. The companies might raise the price of gas, and no redress could be obtained. Public feeling was aroused, and Parliamentary inquiries were held. The agitation resulted in the passing of the Metropolitan Gas Act of 1860. The wisdom of confining each company to a separate district was recognised in this Bill, but at the same time most stringent rules were laid down as to the supply of gas in consideration of granting a monopoly. The maximum price of twelve-candle gas was fixed at 4s. 6d. the 1,000 cubic feet, unless a sudden emergency should arise, in which case the Home Secretary had power to grant an increase in price up to 5s. 6d. The companies were obliged to supply gas wherever it was required, and furnish meters at a fixed rental. The gas itself was never to fall below a fixed standard of purity and illuminating power. The shareholders were to receive a maximum dividend of 10 per cent. A small reserve fund was allowed in order to maintain that rate of dividend, but all further profit was to go towards reducing the price of gas.

In carrying out these conditions, the companies found themselves obliged to raise capital for the purpose of enlarging their manufactories, and extending their mains, as the demand for gas increased. The Corporation of London and the Metropolitan Board of Works sought on these occasions to obtain further concessions. Some of the companies had to submit to a reduction of the "initial price" to 3s. 9d. per 1,000 ft. of 16-candle gas, and to abolish altogether their reserve fund. In case of need they could appeal to three Commissioners appointed by Government to sanction an increase of price for a year succeeding one in which they had not paid 10 per cent.; and the same Commissioners could be called in by the local authorities to authorise a reduction of price, if it appeared that the maximum dividend could be paid at a less charge than 3s. 9d. per 1,000 ft. During the years of coal famine, in 1872 and 1873, when the cost of coal was more than doubled, the Imperial and Chartered companies appealed to the Commissioners, who sanctioned an increased price.

Since this time further efforts have been made against the London gas companies. In the sessions of 1874-75 three Bills were promoted by the Metropolitan Board of Works and the Corporation of London; the first, to authorise these bodies to erect new gasworks and supply gas in competition with the companies; the second, to force the companies to sell their works at a sum fixed by the purchasers; the third, to enact that for every penny above 3s. 9d. per 1,000 cubic feet the companies should charge, a reduction of ¼ per cent. should be made in the rate of dividend to the shareholders. The first and second Bills were quickly withdrawn, and while the third was being considered by a special committee, the Board of Trade intimated that they would agree to the companies paying an increased dividend should they reduce the price of gas below 3s. 9d. The committee approved the suggestion, but the Bill was dropped owing to the lateness of the season, only to be re-introduced during the last session.

Late in the past session of 1876 the Regulations Bill was withdrawn. The Chartered and South Metropolitan Acts were, however, passed, in which the sliding scale of charges was introduced, the initial price for the Chartered now amalgamated with the Imperial and the Independent, being fixed at 3s. 9d., and for the South Metropolitan at 3s. 6d. The dividends of these companies may now rise, as well as fall, above or below the standard 10 per cent. inversely with any increase or decrease in the price of gas above or below the initial price.

The public prejudice against the gas companies seems to arise from a notion that, having a monopoly, the companies may supply bad gas with impunity, and profit during a coal famine by raising their prices. As a matter of fact, the illuminating power of London gas is carefully

tested day by day in different parts of the metropolis by chemists appointed by the Board of Works. Any falling off below the standard of sixteen candles is punished by a severe fine on the offending company. Not a trace of sulphuretted hydrogen is allowed in the gas, and a maximum for ammonia and for other sulphur compounds is fixed by three gas referees, who have power to lower these maxima whenever new methods are discovered for the more effectual purification of gas. The fines inflicted for infringing these rules are deducted directly from the dividends of the shareholders. For the defective lighting of the public streets, the local authorities, not the gas companies, are responsible. The latter supply the gas of the standard quality; the former determine the number of lamps and the kind of burners used. Official inspectors are appointed by the Board of Works to examine the accuracy of the meters used by household consumers, though the modern gas-meters are wonderfully exact in their mechanism. The wretched light often seen in private houses is usually due to obstructions in the internal gas-pipes, which are made by the gasfitters so small as to be easily choked at their bends by rust or dirt.

Compared with other cities, London gas is cheap and good. While we pay on the average 3s. 9d. for 1,000 cubic feet of sixteen-candle gas, in Paris the charge is 6s. 8d.; in Vienna, 5s. 8d.; in Berlin, 4s. 3d.; and in New York 10s.*

J. Gardner.

A LADIES' TRACING-OFFICE.

Among the various schemes which are brought forward for enabling women to extend their possibilities of earning an independent livelihood, one has accidentally come under our notice which seems to call for a word of recognition and encouragement in our columns, not only from the philanthropic, but from the business point of view, as far as regards the work incidental to architectural and engineering drawing. This is the establishment by some ladies of an office where the tracing of engineers' and architects' drawings is carried on as a regular business. The necessity of keeping duplicates of drawings by tracing gives rise, it need not be remarked, to a considerable proportion of the desk-work in professional offices. It is work requiring chiefly neatness and care, with a certain degree of acquaintance with the methods of architectural and engineering drawing, but not necessitating any practical professional knowledge. In Glasgow and Manchester we understand that women have been for some years employed in engineers' offices in doing this kind of work; the movement having been first prompted partly by economical considerations. The success of the experiment in the North led to the idea of trying it in London, and some ladies who desired to do so met with encouragement from a large and well-known engineering firm, who gave them a room in their establishment, where they were enabled to acquire whatever technical training was necessary, and to habituate themselves to the work, under very advantageous circumstances. They were employed there about two years and a half, with so much success as to lead to the idea of opening an office for themselves for carrying on the same work on a larger scale and with a more public connexion. Accordingly these ladies have opened an office at 42, Queen Anne's Gate, Westminster, under the title of the "Ladies' Tracing-office for Architectural and Engineering Plans," where they have carried on this business since February last, and have already received a sufficient number of orders to lead them to hope that they are supplying a real want in the engineering and architectural world.

The importance, in the general interests of society, of extending the opportunities of remunerative work for the number of women who have to depend upon their own exertions can hardly be over-rated; and from this point of view we may say that the particular work referred to seems to us eminently suited for women's fingers, which are so successful wherever delicacy and neatness are essential, while it is in no way over-taxing to their strength; indeed, as a lady who had tried it observed, "it is very like sewing," a light employment requiring neatness of hand, without unduly fatiguing body or mind. And to those who require a good deal of tracing done, we imagine such an establishment ought to be really useful. It has been a modest beginning, not much advertised or proclaimed, and some of our readers who were not aware of the existence of the Ladies' Tracing-office will, perhaps, on hearing of it, be glad to avail themselves of its assistance.

* To be continued.

LIVERPOOL ARCHITECTURAL SOCIETY.

We have printed part of the address read at the opening meeting of the twenty-ninth session of this Society, by the president, Mr. J. A. Picton. The Society, which for a long time was by far the most able and active of the provincial architectural societies, has, after a period of less active existence, made something like a fresh start, which, we hope, will be instrumental in leading to the development of all, or more than all, its former energy and activity. As we gather from the remarks of Mr. Picton, the Society had suffered recently from the loss of the original professional members, without their place being adequately supplied from the younger generation of professional men, a result partly arising, we believe, from a feeling on the part of some members of the profession that the amateur element, which was a constituent part of the Society from the first, had acquired too great an ascendency, numerically, at all events; and at length it became clear, says the President, "that the Society must either be broken up or reconstituted on a new basis. Thanks to the untiring efforts of a few zealous members, the latter course was resolved upon. The profession was canvassed with considerable success. A new code of rules and a more definite basis to its operations were drawn up, and the Society this year enters upon a new epoch of its existence." We congratulate the Liverpool profession on having made up their minds to pull more together. The kind of influence, which may be called cliqueism, which gave rise to the recent state of disunion, is not unknown in other places besides Liverpool; indeed, the architectural profession seems to be peculiarly subject to it; but it is a source of disunion which is calculated, if indulged and encouraged, to seriously injure the advancement and progress of the profession, and its social status and dignity in the eyes of outsiders. We see in the list of council and officers of the Society the names of several gentlemen known as successful and able architects, including four Fellows of the Royal Institute of Architects. We heartily wish success to the Liverpool Society in its future career. In former days many able and interesting papers from its Transactions appeared entirely or in part in our columns; we shall hope to find the future proceedings of the Society more than keep up the prestige of the past. Mr. Picton's very thoughtful address is mainly a review of the situation, especially with the object of pointing out the peculiar requirements of the present time in relation to architecture. We shall print the remainder in our next.

COMPLETION OF THE METROPOLITAN RAILWAY EXTENSION TO ALDGATE.

The extension of the Metropolitan Railway from Liverpool-street to Aldgate, which runs along the east side of Houndsditch, and terminates in Aldgate, nearly opposite the Minories, is all but completed. The opening of this extension will complete the inner circle between the east and west of the metropolis, with the exception of the length between Aldgate and Cannon-street, which would unite the Metropolitan with the Metropolitan District line, and by means of the last-named line admit of more direct railway communication than at present exists between the East End of London and the south-western districts. The station buildings have a frontage to Aldgate 92 ft. long, and 32 ft. in height, and are of stock brick with Portland cement dressings. The elevation has a range of seven lofty arched windows, and two entrances, and a verandah 9 ft. in width projects beyond the frontage.

The works have been constructed under the superintendence of Mr. Brady, the company's engineer. Messrs. Lucas & Aird were the contractors. The whole of the ironwork was supplied from the Thames Iron Works at Millwall. Mr. Woolfall has acted as clerk of the works.

The Hampshire Banking Company's new Buildings in the City. — The name of the architect, instead of Mr. H. Green, as stated, is Mr. Theodore K. Green.

A GIPSY COLONY AT DULWICH.

Accounts reach us from Dulwich from which it is to be feared that the mansions and other buildings and property in a portion of that charming suburban locality are likely to be seriously depreciated in value unless some local authority interferes to remove a nuisance which is reported as intolerable. It appears that a gipsy capitalist has succeeded in purchasing a large field in Lordship-lane, in that portion of the valley around which large mansions and residences of a high character have for some time past been in course of erection. The purchaser of this field has manifestly become the owner of it specially for the purpose of accommodating the members of his tribe, having let it in plots to various bodies of gipsies, at weekly rents, and the fraternity forming the new population is already said to number between 100 and 200. Like the rest of their tribe, they of course live in tents pitched upon the ground, and ordinary sanitary regulations, such as exist amongst the community generally, being ignored, the repulsive and disgusting practices which are daily witnessed will be easily imagined. The nuisance is also intensified by the general social manners and conduct of the tribe, which go to make up a constant and continuous Saturnalia both day and night, and the approaching winter is looked forward to with painful anxiety by the owners and occupiers of property in the locality.

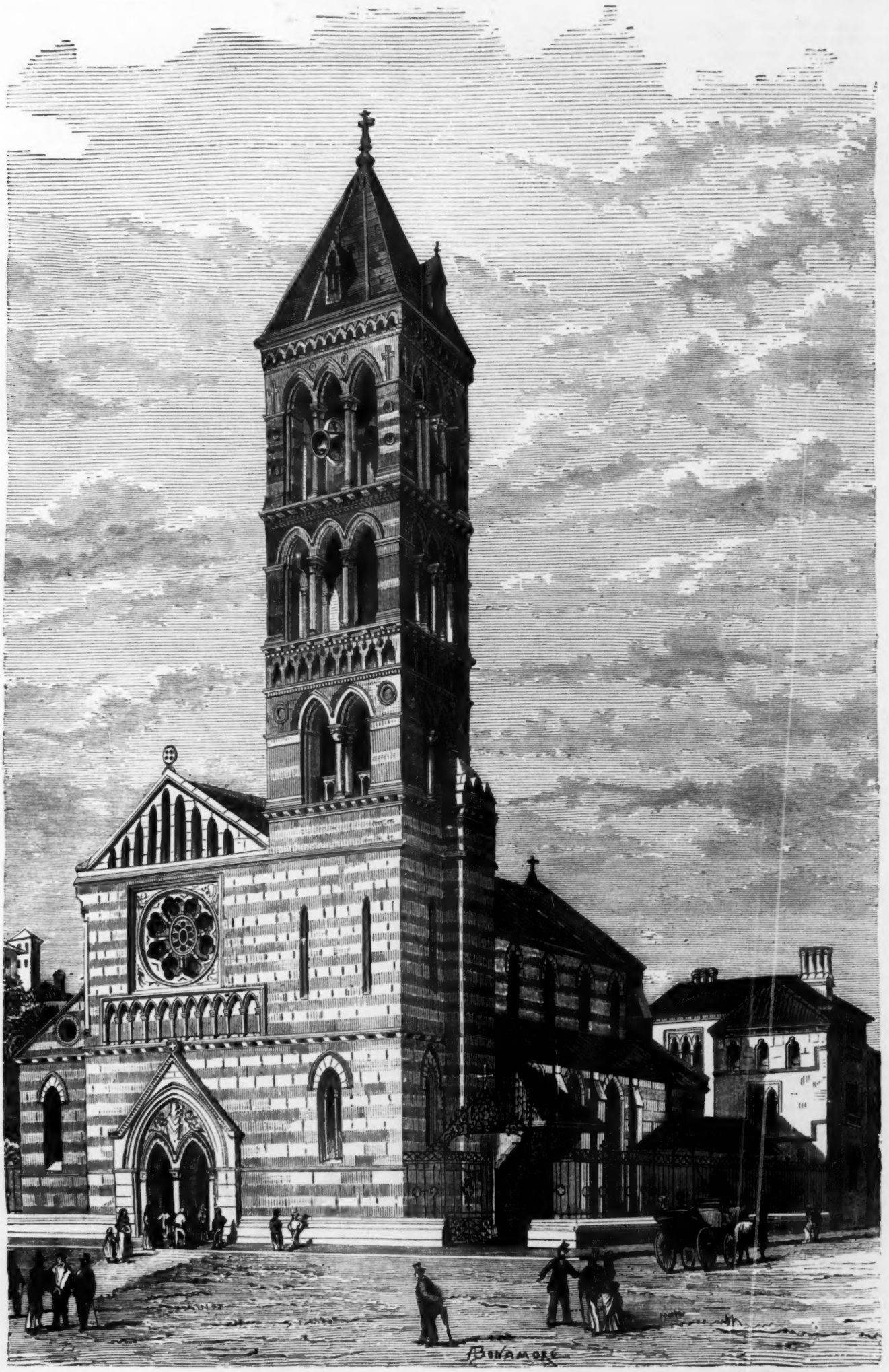
THE EPISCOPAL AMERICAN CHURCH IN ROME.

Ancient Rome is repeating herself, in one sense of the word, and that the better sense, as regards toleration in matters of religion. Papal Rome had banished every sentiment of civil toleration and liberty. Rome of to-day, on the contrary, receives with open arms every manifestation of human thought. If in old times she admitted the gods of all nations within her temples,—now can all religious creeds find in her a place without molestation or obstacle,—the effects of the free institutions by which Italy is now governed, and of which foreigners are now also gladly availing themselves.

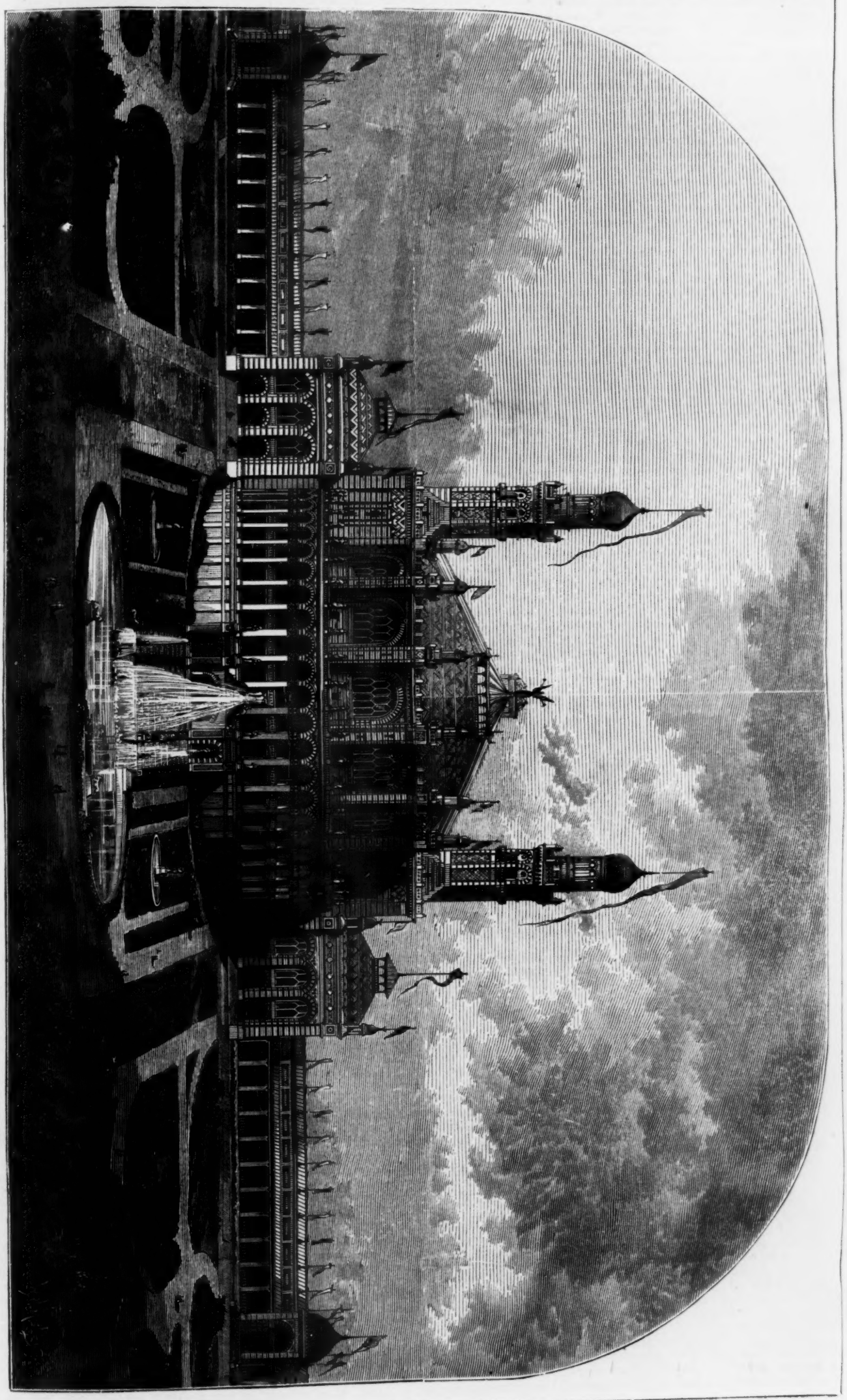
Five or six years ago, the Anglican Churchman of Great Britain or America thought himself much favoured by being allowed to make use of a barn outside the walls of Rome, for public worship; now, not only the Anglican Episcopalian, but the Methodist and the Baptist have their elegant chapels, and in some of the best parts of the city; and the consecration of these buildings takes place in the presence of Roman citizens and aristocratic women, whose difference of faith does not impede their taking part in this religious ceremony.

The most imposing of these ceremonies was that which was performed on the 25th of last March, when the church of "St. Paul within the Walls," erected in the handsome new street, styled "Via Nazional," was consecrated. The church was built from designs by Mr. Street; the style is something between Lombard and Gothic. The exterior presents alternate courses of travertine and red brick. The interior, to judge of the effect when entirely completed from what has already been done, promises greater success than the exterior. The simplicity of the lines, the subdued light, the harmony of the whole, tend to meditation and devotional feeling,—a very oasis of peace and tranquillity in the midst of the glitter and pomp of Roman Catholic ritual. The new church was consecrated by the Bishop of Long Island, New York, a considerable number of American prelates and clergy attending, many of whom had come expressly to be present at this ceremony. They walked (robed) in order from the Hotel of the Quirinal to the church, at noon, through an immense crowd, looking on in reverence and silence. The chanting during the service was accompanied on a harmonium (pending the placing of an organ) by Dr. Monk, of York Cathedral. Like all churches in America, this in Rome was erected by private contributions, costing about 30,000*l*. One individual, Mr. Scott, took upon himself to defray the expense of the tower, amounting to about 3,000*l*.

Society of Engineers.—At a meeting of the Society of Engineers, held November 6th, in the Society's hall, Westminster Chambers, Mr. V. Pendred, president, in the chair, a paper by Mr. Charles E. Hall, "On the Conversion of Peat into Fuel and Charcoal," was read.



THE EPISCOPAL AMERICAN CHURCH, IN ROME.——Mr. Street, R.A., Architect.



PROPOSED PALACE ON THE TROCADERO, PARIS: INTERNATIONAL EXHIBITION, 1878.—DESIGNED BY MESSRS. DAVIOUD AND BOURDAIS, ARCHITECTS.

PROPOSED PALACE ON THE TROCADERO, PARIS.

We have already alluded to the work going forward on the Trocadero in preparation for the palace to be erected there, and we are now enabled, through the courtesy of the architects, MM. Davioud and Bourdais, to give an engraving of the proposed structure. The general style of the building is a modification of the Arabesque; its form is semicircular, accompanied by two spacious wings; proceeding from these are half-circular galleries, forming, as it were, the sides of an immense horseshoe as large as the Trocadero itself, and enclosing the whole of the park. The termination of these galleries is not seen in our view. From the centre of this half-circle springs the rotunda, which will be used as a theatre (with its domed roof surmounted by a winged Genius), flanked by two lofty minarets, and encircled by two tiers of galleries giving access to every part of the theatre, and forming a covered promenade looking out upon the wonderful panorama of Paris and its environs, Meudon, Sèvres, Clermont, &c. The architects have succeeded in combining lightness with strength. All the iron framework of the buildings will be furnished with materials of different colours placed one over another, and further enlivened with bright-coloured panels of enamelled clay.

We shall have occasion at some future time to return to this creation of MM. Davioud & Bourdais,—the Palace of the Trocadero. MM. Krantz, Duval, and Regnault examined a few days ago M. Hardy's design for the principal façade of the Exhibition building, when some modifications were suggested, and their form then and there decided upon.

Although several journals here have asserted that the buildings on the Trocadero will be devoted to an International Retrospective Exhibition, and to agricultural and horticultural shows, we have received official information that up to the present moment nothing whatever has been decided upon, and cannot be, until the plan and interior arrangements of the buildings are finally settled. The Government at Versailles have received official notice from Germany that she will take part in the Exhibition.

WHAT STYLE NEXT?

THE ARCHITECTURAL ASSOCIATION.

At the opening *conversazione* on the 27th ult., mentioned in our last, the president, Mr. H. C. Boyes, said we seem to have reached a stage in the history of modern architecture when we may well pause and consider what is to be our next step. The history of our art, since the great Renaissance and the dull Georgian period which succeeded it, has been a history of *revivals*. We have been engaged in a continual succession of attempts to revivify past forms of art and adapt bygone styles of architecture to our modern tastes and requirements, or even, as it has often seemed, to force modern tastes and requirements into ancient styles of art,—to make the foot fit the shoe, since the shoe would not fit the foot.

One style after another has been revived till at length the whole range of the past has been explored, and the modern architect is left at last to deplore that he has no more worlds of architectural style to conquer. We are the heirs of all the ages, and we have been "rummaging" amongst our heirlooms, discovering and trying on one after another the dresses and trinkets of all our ancestors. Most of them have fitted us very badly indeed. Some have, however, given us a transient satisfaction by their quaintness and peculiarity; others have quickly disgusted us by their incongruous unsuitableness. The Classical toga was too thin and cold for our climate. The Mediæval armour was too cumbersome and rusty. But at last we reached nearly the end of our search, and came upon the wardrobe of that august, but notoriously defunct monarch, into whose tight-fitting garments we have of late been trying to thrust ourselves. Vainly do some of our cleverest friends try to convince us that they fit us beautifully—vainly, though only too ingeniously, do they try to make them fit. We can only marvel and regret that so much cleverness and ingenuity should be so mis-spent, and wait in patient expectation to see in what direction they will next exert themselves. Are we now to expect some entirely new fashion, or can there yet remain some old one to be revived? At such a time, I think we may do well to ask ourselves, can we manage to dispense with this constantly-changing tyranny of fashion in our art? Is there anything we can substitute for it? It is surely hardly necessary to show that these constant changes of fashion are not promoting the real interests of architecture. The history of a fashion in art as in dress may be quickly summed up. Your new fashion goes very well at first; there is a charm of novelty and a piquancy about it; the best people take it up, and with them for a while it thrives; then clumsy and vulgar imitators produce burlesque inappropriate imitations. Molly, the housemaid, appears in a gigantic chignon, and the thing is at an end. Begun for the sake of eccentricity, continued for fashion's sake, it ends in vulgar absurdity. In dress you have only the pages of *Punch* to remind you of its short-lived popularity, and to amuse you at the notion of how people could ever be such fools as to dress so. In architecture, unfortunately, though the fashions are nearly as transient, the effects of them are comparatively permanent,—and we are met at every turn in town and country with the evidences of the constant fluctuations of architectural taste.

These changes in architectural fashion are not, I think, produced by any popular demand for change insisting on our architects continually producing something new and strange. The late Queen Anne fashion, for instance, was not produced "to meet a great public want"; it was the invention of a few clever men in the profession, who had become tired of the Gothic fashion, and were probably disgusted at the vulgarities and barbarisms of the less skilful imitators of their works in that style. There is, indeed, but very little demand amongst the public generally for any architectural fine art whatever. Your typical representative of the British public regards with complete apathy and indifference the momentous changes which transform the skyline of the view from his dining-room windows. The long array of "soup-tureens and tea-urns" on the opposite parapet wall is swept away, and curved gables, broken pediments, and cannon balls take their place; to-morrow perhaps there will be pinnacles and buttresses, but, like Gallio, "he careth for none of these things." The architectural world is convulsed at the new revival, our meetings here become the scenes of almost angry contest, but for him these great facts have little interest and no charm. Even the comparatively small section of the public who do take any interest in such matters, always wait to have their fashion supplied them by the fashion-monger, and as little think of influencing the question of what it is to be as any lady here present hopes to influence the design of the next pattern of fashionable bonnet to be produced in Paris.

The cause, then, I think, is not to be sought for outside the profession. It is a matter which we can ourselves control, and, if we will, remedy; and I believe we should go far to do so if we would resolve to abandon the pursuit of fashion and novelty, and strive more earnestly towards the attainment of what is meant by those old watchwords of the Association,—"Beauty and Truth."

In *all* these past styles that we have been studying, and forming all that in them is worth reviving, are to be found, if we will seek for them, *true principles of art*, as applicable to our own time as to theirs, unchangeable amidst the constant changes of their outward forms. The essence of all good art is to be found, as Mr. Poynter has lately reminded us, "in honest and good workmanship above all things"; and this is especially true of architecture above all other arts. Honest and good workmanship—truth and beauty—are not the monopoly of any one style. In every style they exist in a greater or less degree. Honest and good design, combined with honest and good building, make the highest goal of architectural art. Fitness for its purpose is the first great attribute of every good building. Appropriateness is the *only* true test of beauty in ornament.

The more we resolve to be guided by these principles of art, the less, it seems to me, does it matter what style we work in. We shall, of course, reject at once as unfit and inappropriate styles essentially unsuited to our climate, however beautiful and appropriate they may be or may have been in their own time and place. We shall study them still, not only for the education of eye and hand which such study affords, but for the decorative *motifs* which they will provide. But if we take any of the revived styles, either of Italian or Gothic, which modern experience has proved to be suited to modern requirements, and if we will resolve to be guided in our treatment of them solely by these two principles of fitness and propriety, honest and good workmanship can hardly fail to result.

Through all the changing fashions which have so quickly succeeded one another during the last thirty years, there has been a steadily increasing appreciation of these true principles of art, insomuch that when we *now* turn to the books in which the ideas were first formulated, such as Ruskin's "Seven Lamps" or Pugin's "True Principles," we feel a sort of surprise to find that what struck us on first reading them as little short of original inspirations, read at the present time very like trite truisms.

Much that was extravagant and much that was narrow-minded in these writings has sunk without effect almost into oblivion; but the hatred of all shams, the love of truth and beauty, of honest and good workmanship, which their teaching inculcated, has become popular, not merely amongst architects, but with all who take any interest at all in modern art; and though, of course, in the works of our best artists we find plenty of examples to show how far short of our theory our practice has often fallen, yet the standard of architectural taste then set up has been practically that which we have been striving to attain to, and by which we have been contented to judge both our failures and successes.

I suppose that the promoters of our latest fashion scarcely admit that "free Classic" is to be judged by any such rules; yet even the apparently intentional violations of them in their works are often excused in a rather shame-faced manner by their perpetrators as something very "naughty," but rather "nice." This is the sort of homage that bad art pays to good. The tribute which one who still believes in the "true principles" feels compelled to pay to such charming offences is something of this sort:—"Your little exploded shams, such as graining and marbling; your gables, with no roofs behind them; your exaggerated chimney-stacks, twisted gables, and broken pediments; your false, if fair, constructed ornament of all kinds, has been so very cleverly treated, that one feels disposed to say with Burke, 'Vice has lost half its evil in losing all its grossness.'"

We have seen it, however, in all its grossness in some of the later works of the less successful imitators of the first apostles of the movement; and when seen robbed of its charms of novelty and clever treatment, the foolishness as well as the ugliness of it is only too apparent. But this is a digression.

I have said before that I claim no exclusive monopoly of truth and beauty for any one style. To me it seems that the influence of the writers I have referred to has been rather weakened than strengthened by their attempts to show that Gothic art alone contains the elements of truth and beauty. I believe certainly in the *greater* fitness of Gothic than Italian for all our modern purposes; but I fully admit the existence of plenty of honest and good work in both styles, and I see no reason why both should not continue side by side to exist, if only they be *both* treated not as masters, but servants. We must make our style, whatever it may be, fit our buildings, and give up the vain effort to make our buildings fit our style. We must get rid of the trammels of that archæological or artistic pedantry which would stereotype our styles and still keep us under the thraldom of used-up precedents.

Choose your style and stick to it, and to it alone, is the advice constantly urged on us by those who have tried this course themselves, and seem to have found it satisfactory. It is quite as much as you can do, they say, to properly master the details of any one style. If you try more you must become a "Jack-of-all-trades, master of none." You will never work well in any other style unless you devote the *whole* of your efforts to its study and practice; and they will go on to give instances of men great in their own *one* style, who have failed miserably when attempting to work outside it. I fear I shall be thought presumptuous in expressing my doubts of the truth of what seems at first sight to be the teaching of experience in this matter, and what is certainly the view of many far better entitled to be heard on such a subject than myself. But it seems to me that such a course as that suggested is only good if we are to go on in the future as we have in the past, continually imitating and reproducing.

If one man is to pin his faith, say, to thirteenth-century Gothic, French or English, another to Grecian, another to Italian, and another to Queen

Anne, and each is never to travel beyond the narrow limits he has imposed on himself, no doubt we shall get more faithful imitations of the styles I have named.

If this is what is wanted, then certainly stick to your one style. But if it be true that there are principles of beauty and truth underlying all great styles,—that good honest work may be done in each and all by constantly keeping those principles in view,—then, I think, it follows that, even at the expense of accuracy of imitation, we may work in whatever style or styles may seem best suited to our purposes or tastes, and need not confine our study or practice to any *one*. The greater our knowledge of those styles, the more we have studied their details, the better, no doubt, will be our work; but are not those very failures of good men who have tried to work in a style to which they were not accustomed instances which should teach us not to so accustom ourselves to one style only: that we shall be unable to walk alone when called upon to work outside it? I know well that a man will not be able to acquire so complete a mastery over the details of six styles as over those of one; but I think we have more chance of getting something like progress and development in architecture by a catholic appreciation of the beauties of six styles, than by narrowing our minds down to the study and use of one only. I do not believe in a new style which is to be the spontaneous invention of any one man or of any school. I doubt if we shall ever get beyond the period of revivals, the *régime* of fashions; but if ever we are to do so, it must be by a very gradual growth and development. The battle of the styles will never end in the complete ascendancy either of the Gothic Revival or of the Italian Renaissance. If anything like unity is ever to come, it will be by a very gradual fusion, not by a sudden jumbling together of details of all styles and periods in one inharmonious whole, as the manner of some is. If any real progress is ever to be made, I think it must be by a carefully *free* use of all styles alike, bringing them all alike into service in turn, as occasion seems to dictate; not by a narrow and fanatical adherence to any one style only. If we are to give up all hope of such progress, there is little left for us to work for.

Already there are many of us who have quite given up in despair all real artistic interest in their work. The rapid changes of fashion seem to have fairly dazed them. They began perhaps with as much youthful hope and enthusiasm as any of us. They learned perhaps their one style well, and as soon as they had acquired it, it went out of fashion, or their clients would not stand it, and if they were to get a living they must try something else. They soon found how little the public cared for any art whatever, and that they could carry on their business with profit to themselves and without much harm to their neighbours if they would only contrive buildings that shall keep out wind and water, and not be too inconvenient.

If the client wants plate-glass in a handsome stone front, with Italian cornices, entablatures, and pilasters *ad libitum*, he can have it. If he wants a Gothic castle, or a house in the Latest Elizabethan or Queen Anne craze, he can have it. There is plenty to imitate; he can choose what he likes since he has to pay for it himself; but as for fine art—why, "there's nothing new and there's nothing true, and it doesn't matter."

Others there are who have found their one style pay, — perhaps they were fortunate in choosing it, perhaps they were able to persuade a large or influential number of people that "there is but one true style of architecture, and Jones is its prophet." For them there is no need to submit themselves to the whims and caprices of their clients. Nothing succeeds like success: the more they do the more they are likely to do. A big railway-station hotel, half a dozen churches, a dozen mansions, a town-hall, and a few colleges, make up the pleasing round of their year's work, with perhaps a cathedral restoration or two to fill up their spare moments. With so much work thus entrusted to our foremost men, who shall wonder at the rapid progress our art is making?

Few of us, alas! can expect to attain to the proud pre-eminence of the latter class. Let us, at any rate, strive not to drift into the condition of the former. We have an art worth living for if we will only make it a living art. We have *all* that is beautiful in the past to study, we may learn *all* the grand lessons the men of former days have to teach us; we may learn by *all* their victories; we may learn still more by *all* their failures; but let us beware lest the feeling of reverence which every true student must feel for the past lead us to forget that we should not study it merely for its own sake, but for the sake of the present. The present is with us; the future is before us, to fashion as we will. Art is long—time is short, but long enough, if we use it aright, for each and all of us to do something towards a true Renaissance, not a mere revival of ancient forms, but an infusion of the spirit of truth and beauty into our modern buildings.

BUILDERS' BENEVOLENT INSTITUTION.

ANNUAL DINNER.

THE twenty-ninth anniversary festival in aid of the funds of this deserving charity was held on the 2nd inst., at Willis's Rooms, St. James's, Mr. Charles B. Waller, president, in the chair, supported by about 260 of the subscribers and friends of the Institution. The usual loyal and patriotic toasts were duly honoured, Major Brutton, the secretary of the Institution, responding for "The Army," and Captain George Trollope for "The Reserve Forces," the latter gentleman remarking that he had the honour to command a company of volunteers composed exclusively of the *employés* of the firm with which he was connected. He thought that builders might be counted as amongst the most loyal of her Majesty's subjects.

The President, in proposing the toast of the evening, "Prosperity to the Builders' Benevolent Institution," said that during the period of nearly thirty years since its foundation, the Institution had done a vast amount of good. Much as it had done, however, it had not accomplished all that it might have done, simply because it had not had more ample means. It had frequently been unable to elect on its funds all who had good claims for election,—men who were at one time well-to-do, prosperous tradesmen engaged in the building trades, and employing a fair number of men, but who, from the varied misfortunes which frequently befel the members of those trades, had been reduced from circumstances of comparative affluence to almost the lowest depths of poverty. It was a very painful thing for those who managed the affairs of the Institution to have five or six deserving candidates before them at each election of pensioners, while there were only two or three small pittances or pensions for disposal. He could personally testify to the energy and unremitting attention given to the affairs of the Institution for a long term of years by some of the most respected members of the London building trade, and he could only regret that such praiseworthy labours had been attended with such comparatively small results. It was true that many of the leading members of the trade were large subscribers to the funds of the Institution, but, on the other hand, there was a large class of prosperous and well-to-do builders who at present only subscribed a guinea or two a year, and to whom an extra guinea or so would be but a trifle. The pensions of 24*l.* or 20*l.* per annum granted to male and female pensioners respectively were in almost every instance the sole means of preventing the pensioners from ending their days in the workhouse. He found that the average amount of yearly subscriptions to the Institution was something like 800*l.*,—a sum which was not enough, by a long way, considering the importance and magnitude of the building trade. Since 1868 the Institution had been gradually on the decline in the amount of its annual subscriptions, which had shown a tendency to decrease from 20*l.* to 10*l.* downwards, instead of increasing from 10*l.* to 20*l.* upwards. This was rather a reflection on the liberality of the trade. Surely it was worth while to make more strenuous efforts on behalf of the Institution, especially in view of the fact that the amounts of the pensions were very small, considering that their recipients were men who had lived in comfortable, if not in luxurious circumstances, seeing that they had been masters and capitalists to some extent. Now it was the desire of the committee of the Institution to increase the amounts of the annuities, which were fixed many years ago, when the prices of all the prime necessaries of life were much lower than at the present time, and it was hoped that after this year the committee would be in a position not only to increase the amounts of the pensions, but to add to the number of pensioners. He had personally made a special appeal on behalf of the Institution, and he was proud to say that that appeal had been really handsomely responded to. He had been rather struck, however, by the fact that very few new annual subscribers had been obtained; and while the Institution was very thankful for donations, to enable the invested funds to be augmented to the sum of 20,000*l.*, it was necessary that the amount of the annual subscriptions should be increased. In the year 1867 these amounted to 937*l.*, whereas in 1875 they only amounted to 792*l.*, a circumstance which, as already hinted, was not creditable to the trade, and he really hoped that in future the managers of the Institution would be entrusted with resources commensurate with the importance of the trade. Many deserving applicants for relief came to the Institution, time after time, and had to go away empty-handed. This was more to the discredit of the building trade when it was remembered that, collectively, master builders had very few claimants upon them in the shape of charitable institutions. The Builders' Benevolent Institution, and what was called the Builders' Society, were, in fact, the only two societies to whose funds they were called upon to subscribe as a body, and he therefore ventured to ask the company to drink the toast with enthusiasm, and, farther, to show their sympathy practically by subscribing liberally to the funds of the Institution.

The toast was received with acclamation.

Mr. Robinson (Cubitt & Co.) proposed the health of "The Chairman and President," remarking that the name of Waller had long been known in connexion with all that was fair, equitable, and good in the building trade. Mr. Robinson, in a speech of some length, endorsed what had been said by the Chairman as to the claims of the Institution upon the building trade.

The Chairman having responded, the subscription lists were read, the total amount raised being 880*l.* Of this sum, the chairman's list amounted to 460*l.* 11*s.*, including 100 guineas given by Messrs. Lucas Brothers, and 15 guineas collected by Mr. Chapman amongst the clerks and workmen of Messrs. Waller & Son. Amongst other principal donations was the sum of 50 guineas given by Messrs. Cubitt & Co.

The Chairman, in announcing the sum total collected, said that the Committee of the Institution would now, thanks to the generosity manifested that evening, be able to increase their invested fund to the amount upon which they had long set their hearts, namely, 20,000*l.*, while the new annual subscriptions would enable them to add two, if not three, new pensioners to the list.

Mr. Hopgood next proposed "The Vice-Presidents and Trustees," and adverted to the important services rendered to the Institution by those gentlemen. Mr. R. Freeman, whose name was associated with the toast, briefly responded.

The Chairman next proposed the health of "the Treasurer" (Mr. George Plucknett, of the firm of Cubitt & Co.), remarking that thanks to the earnest and unremitting attention of that gentleman, the finances of the Institution were administered with the utmost effectiveness and economy.

Mr. Plucknett, in responding, thanked the company for the loyalty shown to the Institution that evening, and proceeded to say that he regarded the occasion as the commencement of a new epoch in the history of the Institution, which had now been in existence nearly thirty years. In that time there had been subscribed to its funds nearly 50,000*l.*, of which 30,000*l.* had been devoted to the objects of the charity, and the remainder invested. As a result of the evening's subscription, the Institution would now be enabled to increase its funded property to a round sum of 20,000*l.* In attaining this amount of funded capital, the committee felt it would be unnecessary to go on funding any more money, and they would therefore, in future, instead of investing (according to the rules of the Institution) donations, devote them, together with the annual subscriptions and interest on funded capital, to the purposes of the charity, *i.e.*, in the payment of annuities, &c. This was a very important consideration, seeing that the donations to the Institution had averaged, for the last ten years, 400*l.* or 500*l.* per annum, and presuming that there would be no falling off in the amount of donations in future years, the Committee would have the income at its disposal for the objects of the charity increased by that amount. Another very important element in the future of the Institution might be said also to date from that evening. Some years ago, a building fund for the establishment of almshouses in connexion with the Institution was commenced, and special donations on behalf of that object were collected. It soon became evident, however, that almshouses would be unpopular with the *bénéficiaires* of the Institution, and it was therefore considered that it would be very much better to devote the interest of the accumulated building fund (3,500*l.*) in pensions. In proof that the building of almshouses was not desirable, the Institution some four or five years ago had the offer of one of the almshouses belonging to the Bricklayers' and Tilers' Company, with very comfortable accommodation, and carrying with it an income of 10*l.* a year from the Company, besides two tons of coals, these gifts being quite irrespective of the pension given by the Institution. The question was put to the forty-five pensioners of the Institution whether they would accept the almshouse and its attendant advantages, but only three of them were willing to do so. The fact was that the aged pensioners of the Institution much preferred to live with or near their relatives and friends. This being the case, the committee had recently promoted the necessary proceedings in the Court of Chancery to enable them to invest the amount of the Building Fund (3,500*l.*) to the credit of the Relief Fund, and arrangements for doing this had now been completed. The interest from this would give another 100*l.* a year to be devoted to pensions. He thought all present would agree that it was advisable to increase the amounts of the annuities by at least 5*l.* each. This the committee would now be able to do, and it was hoped and believed that if the donations and subscriptions were fully maintained, all candidates who had claims on the Institution would be enabled to participate in its benefits. This was

a position which the Institution had never been in before. In conclusion, Mr. Plucknett expressed his high appreciation of the services rendered to the Institution by the president.

Mr. Rogers proposed "The Architects and Surveyors," coupled with the names of Mr. Robert Walker and Mr. Franklin.

Mr. Walker, in responding on behalf of the architects, acknowledged the indebtedness of architects to the executive skill brought to bear on the realisation of their designs by the builders. To a certain extent the interests of architects and builders were identical, and therefore he was glad to note that there were now fewer disputes between them than was formerly the case.

Mr. Franklin, on behalf of the surveyors, said he was glad to say that the day was at hand when the building surveyor would no longer be thrust in the background and paid *sub rosa* for the very important services he rendered. The surveyor's services had been too long ignored, but he believed that there was a growing disposition on the part of builders to take care that surveyors should be employed to watch their interests. As to the Builders' Benevolent Institution, he thought its income would be much larger if more attention were devoted to making its existence known amongst the trades and professions connected with building.

The remaining toast was "The Directors and Stewards," proposed by Mr. Waller, sen., and coupled with the name of Mr. Thomas Stirling.

BUILDERS' CLERKS' BENEVOLENT INSTITUTION.

At a special general meeting of this Institution, held at the offices, 27, Farringdon-street, Mr. G. Plucknett in the chair, assent was given to the modifications in the orphan rules as required by the Registrar of Friendly Societies, whereby presentations for periods of twenty-one years may now be purchased (in existing orphan homes) in the names of the trustees as a body, instead of "life" presentations in the name of one member only, as at first provided for. In consequence of this alteration, the sections in the original orphan rules relating to the insurance of the presenters' lives, not now applying, were repealed.

The orphan fund thus being in working order, the purchase of a twenty-one years' presentation to the Orphan Working School, Haverstock-hill, was ordered at this meeting; and the election of a builder's clerk's orphan for education at this school will be shortly announced.

THE CRYSTAL PALACE AND ITS FUTURE MANAGEMENT.

For some time past, as is tolerably well understood, the financial condition of the Crystal Palace has been anything but satisfactory, and it seems to be admitted that some alteration in its management is necessary. In proof of this the directors have just issued a circular to the shareholders, in which they state that in order to make the Palace pay, more profitable use must be made of its space, and they feel that they must for the future look to permanent business rather than special attractions for an improvement in their position. With this view they propose to take the Industrial Courts into their own hands, and to further develop the Education Department. In order to carry this out they state that there must be a re-arrangement of the Company's capital, there being no available funds at present for the purpose. They add that while it is expedient to diminish the nominal amount of ordinary capital, it will be necessary to create a new one, and they recommend that the ordinary stock, which now stands at 1,002,675*l.*, be reduced by 40 per cent., and the balance divided into 20 per cent. A, or Second Preferred Stock, and 40 per cent. B, or Redeemable Stock, and that 50,000*l.* new stock be created and raised to form an addition to and rank in value with the proposed Second Preferred Stock. The directors state that they anticipate the result of these changes will afford a reasonable prospect of obtaining for each 100*l.* of Ordinary Stock, now worth only 15*l.* in the market, an ultimate cash payment of 40*l.* Whether the shareholders will fall in with this proposal or not remains to be seen. In the meantime another proposition of an exceptionally enterprising character has been made by a private individual, which, if accepted, will transfer the entire management and control of the Palace to one man, who is himself ready to undertake the carrying on of the concern as a commercial speculation. Mr. Sawyer, of the refreshment department, who some time ago offered to lease the Palace, has again made a similar proposition. He proposes to take a lease of the Palace and the whole of the grounds, for a term of either seven, fourteen, or twenty-one years, paying an annual rent of 56,000*l.* a year, for the due payment of which he is ready to give security. It is stated that this offer, if accepted, would give a dividend of 2½ per cent. on the ordinary stock, representing, at the present market price of the shares, about 12½ per cent. Some of the shareholders are said to be taking active steps with the view of inducing the shareholders generally to sanction this offer, and we understand it is not improbable that an extraordinary meeting will shortly be called, when it is expected that both the directors' proposals and that of Mr. Sawyer will be discussed and considered. In the meantime an opposing body outside are maturing schemes.

CONCRETE BUILDING.

EXETER DIOCESAN ARCHITECTURAL SOCIETY.

At the last quarterly meeting the report of the Committee, which criticised some of the works in Exeter Cathedral, having been read,

The Rev. Mr. Williams, of Rewe, read a paper on the use of concrete as a building material, and contended that for cheapness, durability, and warmth it was superior to any yet employed. Few houses were internally colder than English houses; and expensive scientific contrivances and costly fuel were necessary to make them warm and comfortable. Wherever he went, in town or country, the great blot visible,—in spite of our marvellous wealth,—was the wretched dwellings of the poorer classes, which he held to be accountable for much of the intemperance which they all deplored. Therefore, philanthropists were devoting much care, attention, time, and money to this subject, in order that they might provide wholesome dwellings instead of the old rookeries, nests of filth and disease, where many of the working classes were obliged to live simply for want of better places. He was glad to notice the praiseworthy attempts made in this direction in Exeter. There was such an enormous need of new houses all over the country, that if a material could be found at half the cost of brick or stone, it was worth considering whether it could not be brought into more general use. Such a material, he believed, was to be found in concrete. Of course, there were disadvantages, and the chief of these was the liability to sudden collapse if bad cement were used, or the work "scamped" by the builder.

In the course of a discussion, the chairman (Mr. H. S. Ellis) said the subject was a most interesting one at the present moment. He did not know whether Mr. Williams had any idea of building churches of concrete; but cheap churches were much wanted just now, and some in districts where the soil was of a character which adapted itself to that kind of work. He directed the attention of the meeting to some important works now being carried on at Seaton, where a three-arch bridge was being built of concrete, on a new principle invented by Mr. Brannon, of London. 3,000*l.* or 4,000*l.* had already been spent on it, and there was every prospect of its proving a great success. The idea of the inventor was that concrete would, for such work, prove far more endurable than stone. There were piers to this bridge, but his principle of composite arches relieved the piers of a great part of the pressure—indeed, the architect believed he could construct a bridge double the length without piers. The toll-house at the end of the bridge was being built on arches. Mr. Brennan suggested that by constructing cottages on arches, instead of on the solid ground, all fear of fever caused by exhalations from the soil would be avoided; and he understood that Sir Walter Trevelyan, on whose estate the bridge was being built, was about to have a number of workmen's cottages built on that principle at Seaton. Flints had been mentioned by Mr. Williams. Hemyock Castle, built in the time of Richard II., was constructed entirely of local flint and cement; and so hard was the material that the present proprietor told him it required the use of gunpowder, and no end of trouble, to pull it down, as he was anxious to do some time ago.

Mr. Williams mentioned that Mr. Rowe (of Exeter) had built a store and dwelling-house of concrete, but they had not been completed long enough to justify him in saying anything as to the success or otherwise of the experiment. There were large gasworks being erected at Sidmouth, the masonry of which was concrete. The mixing was there done by steam machinery, and the process was a very interesting one.

Mr. Hayward, jun., said that one of the objections to concrete from an architect's point of view was that it was difficult to introduce any constructive ornament; it was perfectly adapted for the building of working men's cottages.

ARCHITECTURAL SOCIETIES.

Birmingham.—The opening meeting of the third session of the Birmingham Branch of the Architectural Association was held on the 31st ult., at the rooms of the Association, No. 40, Bennett's Hill. There was a large attendance, and the chair was occupied by Mr. A. Freeman Smith, in the unavoidable absence of the president, Mr. Yeoville Thomason. After the reports of the various classes had been read and adopted, the chairman delivered an address. A large number of drawings (upwards of 200 sheets), including the work of the London members, was exhibited on the walls.

Manchester.—The second winter session of the Manchester Architectural Association was inaugurated on the 31st ult., by a *conversazione* at the Memorial Hall, Albert-square, at which about a hundred ladies and gentlemen were present. The room had been tastefully decorated, and architectural drawings of buildings, most of which have been erected in Manchester, which had been lent for the occasion by several of the architects practising in this city, were hung on the walls. During the evening Mr. T. H. Oldham, the president of the Association, delivered a brief address, in which he stated that the Association was formed for the benefit principally of architectural pupils, and that the number of members was now from sixty to seventy. He enumerated the means which the Association adopts for imparting to its members that knowledge upon subjects connected with their profession which they are not likely to learn in the office, and said that their efforts met with the most encouraging success. The prize offered by the Association for elementary designs the umpire, Mr. Worthington, the president of the Manchester Society of Architects, has this year awarded to Mr. H. Gribble, a pupil with Mr. Davies Colley, of Manchester. A vote of thanks was passed to the president for his address, on the motion of Mr. Murgatroyd.

COMPETITIONS.

Nottingham University Buildings.—In April last the Nottingham Town Council, in pursuance of a recommendation of the Public Buildings Committee, resolved upon the erection by the Corporation of a group of educational buildings in the Horse Fair Close. It was also resolved to advertise for designs for the buildings, the competition being an open one, and premiums amounting to 300 guineas being offered for the designs first, second, and third in point of merit. The designs, numbering twenty-five, have now all been submitted to the judges appointed by the Public Buildings Committee, and on the 30th ult. a meeting of the committee was held at the Drill-hall, to consider the awards of the adjudicators (Mr. Alfred Waterhouse, Mr. Fawcett, of Cambridge, and Professor Clifton, F.R.S.). The plans, with their accompanying sectional drawings, were displayed in the hall, and the members of the committee were engaged some time in examining them. The Mayor (Alderman Manning) occupied the chair at the meeting, and the chief business to dispose of was the supporting or rejecting of the awards of the judges. The decisions were found to be as follow:—"Labor Omnia Vincit" first, "Trent" second, and "Red Cross" or "Maltese Cross" third. The committee adopted the awards of the judges (subject to the confirmation of the Town Council), being unanimous as to the first prize, and on the Mayor opening the sealed envelopes the names of the first three architects were discovered to be as follow:—First prize, "Labor Omnia Vincit," Messrs. Lockwood & Mawson; second prize, "Trent," Messrs. I. Tate & J. Langham, Leicester; and third prize, "Red Cross," Mr. Thomas Oliver, Newcastle-on-Tyne. The block plan of Messrs. Lockwood & Mawson's design shows the position of the buildings upon the site, the principal front being towards Shakspeare-street, and the return wings towards South Sherwood-street and Bilbie-street respectively. The Scientific and Chemical Department occupies the centre of the front of Shakspeare-street, and the Museum is placed next to Bilbie-street. The buildings are set back from the various streets to which they will front at a distance of 50 ft., with the principal front towards Shakspeare-street. The building is designed in the Pointed style, simple in character. The authors say that—"Without the aid of excessive ornament, it has been endeavoured to impress a public character upon the edifice, and to treat it somewhat in the

collegiate style. The entrances are clearly and distinctly marked. The windows are numerous, and every room and corridor throughout the building will be thoroughly well lighted. It is proposed to construct the building in brick work, of sound, hard, and well-burnt bricks, and to face the front towards Sherwood-street, Shakspeare-street, and Bilbie-street, with Ancaster stone, selected as far as possible of uniform colour." The staircases, landings, and passages to be of Northowram hard stone. The corridors to be covered with Dennett's arching. The architects could have wished that all the other floors throughout the building should be on Fox & Barrett's principle, but as the sum placed at their disposal is too small to admit of that being done, it is proposed that 4 in. of pugging should be introduced between the joists as a preventive against the rapid spread of fire. Taylor's damp course is to be built in the walls at the ground line, to prevent the damp rising. The roofs are to be covered with Westmoreland green slate in bands. All the gutters to be lined with lead, and the fall-pipes in iron. The carpenters' work to be constructed of the best Riga, Memel, or Dantzic fir. The joiners' work throughout to be in pitch pine of selected quality, and varnished. Messrs. Tate & Langham, of Leicester, winners of the second premium, have adopted the English Renaissance style. Mr. Thos. Oliver, of Newcastle-on-Tyne, winner of the third premium, chose for his style an early form of Geometrical Gothic, purely treated.

Handsworth Public Buildings.—The designs submitted in competition for the new public buildings for the Handsworth Local Board were on exhibition on the 28th, 30th, and 31st ult. The requirements of the promoters comprise Local Board offices, a room for the holding of meetings of the Board, committee-rooms, and a large public room, together with stables, cart and implement sheds, and other requisite accommodation. One of "the conditions" of competition was that the cost of erecting the buildings should not exceed 7,000*l.*, a sum which certainly will not be found too large (according to the *Birmingham Gazette*), if some of the designs are carried into effect. The site selected is now occupied by the Wagon and Horses Inn, situated on the Wolverhampton-road. It comprises about 4,000 yards of land. No fewer than twenty-nine sets of designs have been sent in by the various competing architects. The members of the General Purposes Committee of the Board were entrusted with the selection, and called in the aid of Mr. Yeoville Thomason, architect, in accordance with whose advice the committee reported to the Local Board, at its meeting on the 1st inst., that the three best sets of designs were those which respectively bore the mottos "Compact," "Utility," and "Postulata," and recommended the Board to award the premiums of 50*l.*, 25*l.*, and 10*l.* in the order named. They recommended the Board to erect the proposed building in accordance with the designs marked "Compact," subject to modifications the Board might decide upon. The report was adopted. The chairman afterwards announced that the authors of the design bearing the motto "Compact," were Messrs. Alexander & Henman, of Stockton-on-Tees. Mr. Robert Walker, of London, took the second premium, and Mr. William Wykes, of Birmingham, the third.

THE MONUMENT TO BYRON.

The models submitted in competition for the proposed monument to Byron were open to private view on Wednesday last, at the South Kensington Museum, and to public inspection since then. Between forty and fifty designs have been sent in, all of which have been rejected by the Committee in the first instance; a course we cannot blame, as there is not one among those exhibited which we should wish to see carried out as the national monument to Byron. Six, however, have been selected from these as the most promising, the authors of which are to be asked to enter into a second competition, we presume with some further intimation from the committee as to the result which they desire, or the manner in which they consider the present collection to fall short of it. The designs selected as the best are those numbered 6, 27, 28, 2, 12, 14: the numbers being placed in what has been considered the order of merit; the names of the artists were not officially made known when these remarks were written. We concur in the judgment which placed No. 6 at the head of the list; indeed, on first looking round we had noted it as the best figure of the collection. The poet is represented leaning on a broken pillar, his chin resting on his hand, with an attitude and countenance expressive of melancholy reflection; it is perhaps a little too melancholy; the attitude and the lines of the drapery leave little to be desired, but the few who remember the poet are not satisfied with the face, which especially wants refinement in the treatment and expression of the mouth: there is, moreover, no indication whatever of any architectural setting for the figure, which is without even a pedestal. A difficulty in treating the figure of Byron in sculpture is that his countenance was so different in character when in repose and when aroused, so that two opposite expressions which may each be in themselves correct, may each seem deficient according to the ideal of the man which is uppermost with the spectator; his whole literary and social personality, indeed, had this kind of dual character, and where most of the competitors have failed has been in forgetting one side of his character, making him either too wild or too tame, the latter defect predominating. No. 27, however, is a fine energetic figure, showing the poet in his younger days, standing with bright upturned countenance, and with one hand on the head of his faithful Newfoundland dog; the statue, which is realistic in costume, is shown as occupying a niche in a well-designed Greek shrine, so as to give a front view only: this is a very good work, but then it is purely Byron the man, or the lad, while it is to Byron the poet that the monument is to be erected. No. 28, with something of the same general character as the last (and which, indeed, seems to be by the same sculptor), bears this in mind; a mass of drapery falls from the right arm, which is raised (the hand holding a pen), while the left drops by the side of the figure, which in this case is under a canopy open all round. No. 2 is a very ambitious work, with a great deal of what critics of two generations back would have called *brio*; the figure, garlanded and heavily draped, stands with one foot on an Ionic capital, on a well-designed pedestal, at the foot of which a lion crouches with his paw on a lyre and a palm-branch. The lion is the best part of it, as a piece of design, though his significance is not very obvious; the figure is not like Byron, and is theatrical in the extreme; but there is a certain power and "go" about the whole thing. Nos. 12 and 14 show each a seated figure on a simple pedestal,—the first heavily and rather finely draped, the second more realistic in costume; both are far too placid in expression and very deficient in character. Demands upon our space this week compel us to be brief. We may just mention that Nos. 7 and 8, though too melodramatic and faulty in their accessories, show force of expression and some originality, the former at least; No. 9, with a well-designed pedestal with figures from the poems in a bas-relief (in which Napoleon appears rather oddly behind Juan and Haidee), is a well-balanced work; No. 22, with a rather "Roman-toga" figure of the poet, and a "Muse" writing underneath, has a certain dignity, and the life-size head shows careful study; No. 23 has a somewhat original architectural pedestal with bronze figures of Cain, Gulnare (?), and the prisoner of Chillon, and a principal figure not without energy and character. Some of the designs are absurd enough; what fun Byron would have made of them!

The private view did not attract as good an attendance as was expected, but we cannot deny ourselves the pleasure of recording that among the few visitors was one lady whose recollections of Byron were listened to with great interest by some of those present, and whose own girlish charms had been celebrated by the poet, more than sixty years since, in those "Stanzas to Ianthe," which have had a hundred thousand readers, and will have as many more.

SIR GILBERT SCOTT AND THE NEW ASSIZE COURTS, NEWCASTLE.

Sir,—As chairman of the Newcastle Council Assize Courts Committee, my attention has just been called to a letter which appeared in your paper of the 21st ult., signed "A Provincial Architect," conveying the insinuation that Sir G. Gilbert Scott had "touted" for the above work. The character of Sir Gilbert stands so pre-eminently high that this dastardly attack might be safely left to recoil on the head of its author; but as you state other letters had been received on the same subject, I feel it my duty to give you the actual facts.

The necessity for the erection of joint Assize Courts with the county of Northumberland had been agitated in our town during the last forty years. At length, through a combination of fortuitous circumstances, there was every probability of such an arrangement being carried out, our Corporation having offered, upon certain conditions, to erect a building suitable for that purpose upon a plan to be approved of by the county of Northumberland. The latter having accepted such offer as a basis for further negotiations, Sir Gilbert Scott, happening to be in our town at the time looking after the restoration of St. Nicholas Church, and being an old and valued friend of my own, I incidentally mentioned to him what our Corporation had done. He at once replied,—"I have paid considerable attention to the construction of Assize Courts, and should be happy to send you a design." I explained to him that we, as a committee, had no power to spend money for procuring designs, but if he thought proper to furnish us with one, and to take the risk of its adoption with the Council afterwards, that would be a different matter: to this he assented. Our conversation was brought before my committee. They all considered it a most handsome and liberal offer, and it was unanimously agreed to accept it,—of course, subject to the final ratification of the Council. Though the offer was not formally submitted to that body, it was pretty well known for months before Sir Gilbert had completed his plans that he was engaged in their preparation. He had had personal conferences with the members of my committee; with our borough architect (who had himself prepared plans for joint Assize Courts, which had been laid before the county authorities, but had not been accepted by them); with Mr. Crosier, C.E. (who had so successfully remodelled the Durham Assize Courts, and has been engaged by the Northumberland Justices to draw plans for the reconstruction of their Moot-hall); also with Mr. Charlton, their surveyor, all of whom, instead of showing any jealousy towards Sir Gilbert, treated him with the greatest courtesy and highest possible respect, and voluntarily offered to afford him any information which might be of service to him in the preparation of his plans. No exception whatever was taken to the course proposed by Sir Gilbert until after his design and plans had been produced. They had been unanimously approved of by my committee, and met with so much favour from those interested in the erection of new Assize Courts outside the Council, that a memorial from some of our largest ratepayers, headed by the firm of Sir W. G. Armstrong, was presented to our Council, urging their adoption. Meanwhile, some of our less noted architects succeeded in prejudicing the minds of certain members of our Council by grossly exaggerating their probable cost. Sir Gilbert had estimated the cost would be little above 60,000*l.*, whereas two of the gentlemen referred to, from motives that will be readily understood, had industriously circulated a report that the cost would be at least 100,000*l.*! Hence our Council became alarmed, and refused to adopt the report of my committee recommending Sir Gilbert's plans, thus retarding a great work, which, if it were carried out, would secure the proper administration of justice, and add to the town another memento of the genius and constructive ability of one of the greatest of living architects. However, Sir Gilbert may solace himself with the reflection that,—

> "Be thou as chaste as ice, as pure as snow,
> Thou shalt not escape calumny."

Charles Henry Young.

Newcastle-on-Tyne, Nov. 8.

Photographic Society of Great Britain. On the 31st ult. the president and council of the Photographic Society of Great Britain gave a *conversazione* at the house of the Society of Painters in Water-colours in Pall-mall East. The spacious gallery of the Society was for a time divested of the usual display of water-colour paintings, and in their stead were shown an admirable collection of the productions of photographic artists of greater or less celebrity. Amongst the contributions were some views of ruined buildings in Hindostan by the corps of Royal Engineers. A collection of photographs taken on sensitive tissue, a new process which obviates entirely the necessity of using any glass negatives, were also exhibited. The exhibition will remain open until about the middle of November.

CHURCH-BUILDING NEWS.

Sevenoaks.—A meeting was held at Sevenoaks on the 23rd of September, to receive the report of Mr. Ewan Christian, the architect appointed to report to the Restoration Committee upon the present state of the churches and their capabilities for improvement. Commencing with the parish church of St. Nicholas, Mr. Christian, in his report, first gave a brief sketch of the early history of the fabric. So far as he could discover, no portion of the existing church was erected before the middle of the thirteenth century, but it was most probable that an earlier church stood on the same site. The interior of the church was entirely reconstructed in the fifteenth century, when the present south aisles of the nave and chancel appear to have been erected. The western tower was raised towards the latter end of this century, and it is clear, from the marks still existing on the east wall, that the nave was then covered with its early and high-pitched roof, but it was quite probable that when building their lofty tower the constructors had in view the addition to the nave of a corresponding clearstory, which was never carried out. It is difficult otherwise to understand why the tower was raised so high, as it is now quite out of proportion to the other parts of the church. And, externally and architecturally considered, such a clearstory was necessary to give proper and dignified proportion to the edifice. Passing on to the present condition of the building, the walls were reported as thoroughly sound, with some few cases of surface dilapidations. The roofs were all modern, all ill-designed and ugly, but generally substantial. The following is Mr. Christian's estimate for the works required in the restoration, ten per cent. to be added for contingent expenses:—For the north aisle, 385*l.*; south aisle, exclusive of porch, 308*l.*; porch, 165*l.*; vestry, and an extra window, 77*l.*; drainage, &c., 20*l.* For the tower—external repairs, 405*l.*; internal repairs and re-stuccoing the nave and aisles, and providing a new ringing-floor, 632*l.* For a new high-pitched oak roof on the nave, 889*l.*; panelled ceiling under the aisle roof, 498*l.*; new floors and fittings, with oak seats, 1,749*l.*; gallery in the tower for children, 150*l.*; warming and lighting, 350*l.*; total, 5,628*l.* Entirely new roofs would cost 1,160*l.* extra. The estimate for the improvement of St. John's Church is as follows:—The north aisle, 539*l.*; arcade in stone, 302*l.*; raising of the walls of the nave, 539*l.*; chancel and vestries, including the arch next the nave, 1,494*l.*; tower and spire, 975*l.*; completion of the nave by the western extension of the south aisle and porch, 1,980*l.*; total, 6,415*l.*

Brigg.—The foundation stone of the new chapel at Brigg Workhouse has recently been laid. The chapel, to be dedicated to Our Saviour, is to be built from a design furnished by Mr. Goddard, of Lincoln, of plain bricks, with lancet windows, and the interior will be of best red pressed bricks, with white string-courses. The cost will be 500*l.* Mr. George Dent is the builder.

Prescot.—The formal re-opening of the large and ancient parish church of Prescot, which has been closed several months for restoration, took place on the 6th ult. The whole of the old fittings have been removed, including the galleries which so disfigured the interior, and the church now displays its full proportions. The flooring is entirely new, and instead of the old-fashioned pews, with high doors, the nave is filled in with open benches of pitch pine. At the west gable, where the organ was, the wall is now adorned with Gothic tracery-work, and towards the chancel end of the church great improvements have been made by the construction of a new chancel arch and organ-chamber, with arches opening into the nave and chancel. The old nave columns and arches have been cleaned of their paint, and now appear in red stone; and the walls throughout have been replastered, and there are new panelled ceilings over the side aisles. The works have been executed by Messrs. Jones & Sons, Mount Pleasant, Liverpool, from the designs and under the superintendence of W. & G. Audsley, architects, of Liverpool. The estimated cost exceeds 3,000*l.*

Farway.—Farway Church, Devon, has been recently re-opened, after restoration at a cost of nearly 4,000*l.* The roof and walls have been stripped of the plaster with which they were covered, and, as the oak roof was found to be rotten, a new stained deal roof has been substituted. A new floor of encaustic tile has also been laid throughout the building, and at the entrance to the chancel is a wide step of Merechurch marble. The chancel and west-end windows are now filled with stained glass at the expense of Lady Prideaux. The figures in the chancel window represent the birth, crucifixion, and ascension of Christ, and those in the west window illustrate the scene of Simeon and the Infant. It was found necessary to replace the old masonry of the west window with new, but the original character has been strictly observed. A new chancel arch, supported by red marble pillars, has been added, and at the east end of the north aisle a new chapel has been erected over the Prideaux family vault at the expense of Lady Prideaux. This chapel is reserved as the family seat, and is filled with low solid oak sittings. A new stone reredos, also the gift of Lady Prideaux, has been placed in the chancel. The church has been reseated, the pews being made of stained deal. A new carved oak pulpit, standing in the south corner of the nave, has been erected, and the reading-desk and lectern, which stand in the chancel, are made to correspond. A new stone font has also been added. Externally, the stones have been cleaned, and the joints filled in with cement. Strong wire guards are placed as a protection to the stained-glass windows. Mr. Faulkner was the contractor for the masonry. The decorations were by Mr. Donne, and the stained windows were erected by Mr. Drake, all of Exeter; and the work was executed under the direction of Mr. Edwards, architect, also of Exeter.

Edgmond.—The parish church of Edgmond has been reopened, after extensive repairs and improvements, which have cost between 2,000*l.* and 3,000*l.* The walls throughout have been thoroughly repaired where needed, new windows put in nave and chancel, and the latter has been new roofed. A new pulpit of white Caen stone has been substituted for the previous inelegant structure. The new one was made by Mr. Maddock, of Shrewsbury. The design is plain, and its panels are of Gothic character, in keeping with the architecture of the church. Opposite to it is a lectern, the gift of the working classes of Edgmond, and quite in keeping with all the other appointments of the church. The east window is retained. Those on the north and south are glazed like those of the nave, except two small ones, and one which Mr. Asterley, churchwarden, has put in the south, in memory of his sisters. The glazing was entrusted to Mr. J. Davies, of St. Mary's-place, Shrewsbury.

Hawick.—The parish church of Southdean, Hawick, was opened on the 1st ult. The church is in the Early English style, and the windows are filled with stained glass, one of these being in memory of Thomson, the poet, whose father was for some time minister of the parish. The plans were by Mr. Wright, architect, Edinburgh.

Chelsea.—The Bishop of London has consecrated a new church at Chelsea, near Cremorne Gardens. It is dedicated to St. John, and is the outcome of a mission established on the spot some three years ago by the Diocesan Home Missionary Society. The church will seat upwards of 700 people. The cost of the building was about 5,800*l.*, which has been raised by public subscription, supplemented by grants from the Bishop of London's Fund, and similar organisations.

Butterton (Derbyshire).—A spire is about to be erected upon the tower of the parish church at Butterton, to the memory of the late Miss Gaunt, of Leek, by her niece, Mrs. Byrom. Mr. Sugden, of Leek, is the architect, and Messrs. Bassett & Wilson, of Sheen and Grindon, are the builders.

THE CHANNEL TUNNEL.

Soundings have been taken in the English Channel with a view to finding the exact depth of the sea, and to examining the nature of the sea bed, in connexion with the projected Channel Tunnel. No less than 3,257 specimens of the bottom formation have been taken, and these will be classified in order to compile a chart of the sea-bottom. The shaft on the French side (at Sangatte) has reached a depth of 125 mètres (410 ft.), thus leaving only 16 ft. to complete the distance at present contemplated.

The Institution of Civil Engineers.—The first ordinary meeting of the fifty-ninth session of this scientific Society will be held on Tuesday, the 14th inst., at the house of the Institution, Great George-street, Westminster.

CLIMATE OF THE S.W. OF IRELAND.

GLENGARRIFF—BANTRY BAY.

A large tract of Ireland, extending fifty miles from Killarney to the Southern Ocean at Cape Clear, and from E. to W. about thirty miles, although the most beautiful and picturesque portion of the United Kingdom, is but little known even to tourists. The Atlantic bounds it on the S. and W., and the bays of Dingle, Kenmare, and Bantry, all great and reputed harbours, fed by the Gulf ocean stream, bestow upon the whole range of coast from Dingle to Bantry a richness of scenic beauty and commercial facilities hitherto but little appreciated. The scenery of mountain range, of hill and crag, throughout the whole extent is unequalled; but there is also a temperature of climate, occasioned by the continuous flow of the Gulf stream against this portion of the coast, which attempers the atmosphere, and which, flowing into Bantry Bay at the S.W. extremity of the island, distributes a warm and unfailing supply of pure ozone for the mitigation of the climate, and fertilisation of the whole region in the growth of tree, shrub, and flower.

At the extremity of the bay, sheltered by picturesque mountains on the E., N., and N.W., stands the large hotel of Glengarriff, in tastefully-laid out grounds, near to the charmingly-wooded demesne of the Earl Bantry, and built on the lands of George Preston White, esq.; thus it is protected from all cold winds, and although 1° more N. than Torquay, the registered temperature is 6° higher, being 7° above that of London! Thus, as a sanatorium, it cannot be surpassed. Many high authorities have written on it; and amongst others Thackeray said,—"Were such a Bay upon English shores, it would be a world's wonder. What sends picturesque tourists to the Rhine and Switzerland? There is a country within five miles of the pretty inn of Glengarriff, of the magnificence whereof no pen can give an idea."

As to the usual places of resort for invalids, those who have been there cannot forget the baneful influence of the south wind, called the "Mistrale," at Nice, Genoa, and Marseilles; nor the chilling influence of the "Bise," or north wind, at Montpelier, and other French towns, the usual places of refuge for invalids. The writer hereof has felt those winds severely.

To close a short description, Lord John Manners says,—"The twenty miles from Kenmare to Glengarriff form the grandest scenery I know of; an ascent of four miles brings you to a tunnel 600 ft. long; on emerging from which the head of Glengarriff opens upon you; thence, at every step you descend, the scenery becomes more beautiful, every turn of the road revealing some new charm, with Bantry Bay and the Atlantic ever bounding the view; a glorious sunset was lighting up that noble arm of the sea and its swelling mountains, as I crossed its broad surface, which from its situation and natural advantages ought to rival Plymouth or Brest." T. H. H.

THE EDUCATION OF ARTISTS.

Sir,—In an article on the papers read at the Social Science Congress, you say that mine and Mr. Richmond's papers do not materially differ. Allow me to point out a very essential difference, a difference which affects the importance of mural painting as the most effective means of raising art to the highest status. The vitality of the ancient art organisation inhered in the system of scholarship and the building to be embellished being itself the school.

Mr. Richmond, in advising that the education of the mural painter should be provided in the departmental schools, has missed the heart of the matter. Moreover, the education required could not be so obtained. W. C. T.

P.S.—The point which I have thus made also shows wherein the present system of art-schools is at fault.

UNDER METROPOLITAN BUILDING ACT.

Mr. Jarvis, the district surveyor of Camberwell, summoned Mr. Leonard before Mr. Chance, sitting at the Lambeth Police-court, the other day, for not having inclosed one side of a building with a wall, he having made use of the wall belonging to the owner of the adjoining house. Mr. Mayhew, solicitor, appeared for the defendant. The Magistrate, after hearing the evidence, adjourned the case for a month to give the defendant time to build a wall or to enable him to make some arrangement with the adjoining owner for him to use the wall as a party wall upon its being made in conformity with the Act.

SELECTION OF SANITARY OFFICERS.

Sir,—From my own experience, I find that the greatest obstacles to sanitation, as far as sanitary engineering is concerned, are the uneducated builders, who, possessing a very primitive notion of the laws which govern sanitary requirements, fail to voluntarily receive instruction from more competent authorities, and, allowed to work, as is too often the case, upon the principle of non-interference, constitute one of the chief causes of the unsatisfactory condition which exist in places under sanitary boards. I find it a comparatively easy matter to convince the entirely uneducated masses of the necessity of such requirements, for instance, as an efficient system of house-drainage, but am resisted with much more opposition when I endeavour to convince those whose little learning in sanitary matters fills them with that conceit which defies the instruction of others as well as reveals unwittingly their own ignorance. As nearly all works that are purely of a sanitary character are under the jurisdiction of sanitary boards, what is wanted is a better class of men to administer the sanitary laws, and advise upon sanitary measures; and for this purpose let the Local Government Board appoint an examining body, consisting of architects, civil engineers, physicians, and surgeons, to examine the competency of persons aspiring to fill the offices of inspector of nuisances, medical officers of health, and town surveyors (who are the principal advisers of sanitary boards), and reject all candidates failing to come up to the prescribed standard. This would be a much better system of electing competent candidates than to elect them upon the strength of testimonials, and, forsooth, by other even more ludicrous and absurd means; and, indeed, this I think is not the worst feature about appointments under sanitary authorities, for, as soon as an appointment is advertised, what is the procedure of intended candidates? 1st, an invocation of the goddess of patronage; 2nd, getting up a correspondence with "my friends' friends," asking them to write little introductory notes to their friends, and following up this preliminary by resorting to the degrading custom of interviewing the "powers that be." This is another means by which sanitary progress is retarded. When a selection is thus unadvisedly made, what must be the inevitable result but a total or partial failure of those sanitary works upon which their duties may hereafter call upon them to advise? I have resorted myself to this hackneyed system of—well, I may say—touting, simply because others do it, yet, personally, I detest a custom so derogatory; but could not the Association of Municipal and Sanitary Engineers and Surveyors be doing good service (as far as town surveyors are concerned) by inculcating a feeling of *esprit de corps* among its members, and, so to a certain extent, watch over and endeavour to prevent this kind of practice? If they would I should be extremely happy to follow their example. It would lead to a more rigid observance of the laws of health, and raise the dignity and status of the office of town surveyor, get a more independent class of men, and accordingly enable them to receive that which they do not now sometimes get, namely, respect from those whom they serve.

L. L.

WAGES IN LIEU OF NOTICE.

LIDDARD *v.* STEPHENSON.

In this case (heard on the 25th ult. at the Brompton County Court) the plaintiff sued the defendant, a builder, of Millman's-row, Chelsea, for the sum of 30*s.* for a week's wages in lieu of notice. The plaintiff said he was engaged by the defendant as a temporary clerk at a salary of 30*s.* per week. On Monday, the 7th of August, being Bank Holiday, he did not attend the office, and on the Tuesday morning one of the defendant's clerks called at his house, and said, as Mr. Stephenson was not busy, he need not come for a few days. On the following Monday he was told that his services would not be required, and he thought he was entitled to a week's notice.

A clerk from the defendant's office said that the plaintiff was dismissed, as he absented himself on the Monday.

His Honour held that even if the plaintiff should have attended business on the Bank Holiday, his absence had been looked over, for the witness had told him that Mr. Stephenson was not busy, and did not want him for a few days. He thought the plaintiff entitled to a fortnight's salary, and had he sued for it, he should have given him a verdict. He gave judgment for the plaintiff with costs.

Institution of Surveyors.—The first ordinary general meeting of the session will be held on Monday, November 13th, when the president, Mr. Edmund James Smith, will open the session with an address.

NEW SHOREHAM CHURCH.

Sir,—I took the opportunity whilst in the neighbourhood of visiting new Shoreham Church, and was very much shocked to find this splendid monument of our forefathers being wantonly defaced by a gang of men who were at work on the "restoration." The whitewash inside is being removed by the application of chisels, small flat crowbars, and rasps, these last being used on the delicate carving of the capitals. If this work is allowed to proceed many more weeks, or even days, there will be no ancient face left to the internal stonework.

The flat crowbars were pieces of iron, about 18 in. long and 1½ in. wide, with sharpened ends, and used not only to scrape, but to chip off the whitewash from the mouldings.

On the outside cement is used to plaster over the decayed or weather-eaten portions of the stone, and the new stones in some places are stained with cement to imitate old.

The ancient windows in the choir aisle are being taken out to insert copies of the older windows, of which one remains, already scraped as clean and white as the whole of the east end was, I hear, a year or two ago.

Surely there can be no faculty issued by the Bishop which would cover such destructive work of "restoration."

In the hope that something will be done to save the yet untouched portions of the church, I ask you, sir, to insert this letter in your next issue.

An Antiquary.

USE OF CHALK IN BUILDING.

Sir,—I regret some of your readers have not replied to my inquiries respecting the proper treatment of chalk "previously to its being used as a building material, for both inside and outside work." Some information would be a public boon, as I feel sure the real value of chalk for building purposes is not generally known, more especially its proper treatment first. The information I require is:—

1. Should it be dug in the autumn, and exposed to the frost, wind, and rain of winter, or in the spring, and then exposed to the sun?
2. Should it be dug at any time, and carefully housed and kept dry?
3. If it requires to be laid in its natural bed like stone?
4. Does chalk for outside work require different treatment to that used inside?

Z. W.

"THE EMBANKMENT AND THE DROWNING."

Sir,—Would you permit me to make an improved suggestion to the very excellent and necessary one in your recent issue, viz., that long planks or poles should be secured with iron guides to the face of the wall and so arranged as to rise and fall with the tide. This would be less unsightly than the chains, and certainly more useful, as their whole length would appear on the surface of the water.

F. N. K.

SURVEYORSHIP ITEMS.

Kingston-on-Thames. — At a meeting of the Kingston-on-Thames Highway Board, on the 28th ult., a letter from the surveyor (Mr. James Bateman, C.E.) was read, asking for an increase of salary. In answer to a question, the clerk said that the surveyor's salary was now 240*l.* a year. An estimate drawn up by Mr. Bateman showed his annual expenses, which last year, including the purchase of his horse, were 239*l.* The clerk pointed out that Mr. Bateman had the horse in his possession now, and Mr. Burnett stated that the expenses, excluding the purchase of the animal, were estimated at 150*l.* per annum, so that the surveyor had only 90*l.* a year for himself. Mr. Burnett at first moved that Mr. Bateman receive a salary of 400*l.* a year, but he ultimately moved, "That the surveyor's salary be increased to 350*l.* a year, as long as he gives satisfaction to the Board, and that he shall not accept any other appointment without the sanction of the Board." This was carried unanimously.

St. Pancras.—Mr. Frank F. Buckham has been elected assistant-surveyor to the St. Pancras Vestry, in the place of Mr. Brumell, who was lately appointed surveyor to the Local Board of Health for Sevenoaks.

Newington.—Mr. W. H. Wellsted has been appointed engineering-surveyor of the Newington Local Board and Urban Authority.

Guy's Hospital Drainage. — We have received intimation from Mr. A. Billings, surveyor to Guy's Hospital, that Banner's system of sanitation has been applied to the oldest portion of the hospital, and that he anticipates it will be a complete success. We shall be interested in learning how time deals with it.

MASTERS AND MEN.

Glasgow.—At a meeting of the Glasgow master slaters on the 30th ult., to consider the advances asked by the operatives, it was unanimously agreed to concede the advance of ½d. per hour, but that the pay-days should remain fortnightly. The men asked for weekly payments.

Burton-on-Trent.—The plasterers of this town struck work on the 30th ult. for an advance of wages. They demand 9d. per hour, which the masters refuse.

Liverpool.—The Liverpool lodge of the Operative Plumbers' Association have given six months' notice to the masters of a new code of by-laws, which are to come into force on the 1st of May, 1877. In regard to the hours of labour and the rate of wages, it is proposed that from the 1st of March to the 1st of November the hours of labour be fifty per week (a reduction of five hours), at the rate of 9d. per hour (1½d. advance per hour). From the 1st of November to the 1st of March the hours per week are to be forty-seven and a half, at the rate of 9½d., or an advance of 1d. per hour. Quarter time is to commence at 9 o'clock instead of 8.30 a.m.

Plymouth.—A piece of trade-union tyranny at Plymouth, reported by the *Western Morning News*, is (says the *Pall Mall Gazette*) even more remarkable than that which has of late attracted so much attention at Messrs. Doulton's works in Lambeth. "It seems that a large building is being erected near the Hoe, at Plymouth, by Mr. Pethick. His men come to work at six o'clock in the morning, and leave at five in the afternoon. Finding that at six o'clock the mornings are now so dark that the men could not properly see to work, and that it was not safe for them to be climbing about the scaffolding, Mr. Pethick suggested that they should begin at half-past six and work up a quarter of an hour of the time lost at dinner-time and the other quarter after five o'clock. The men were quite willing to accept this proposal, but the Masons' Society interposed, and prohibited the arrangement under a penalty of 50*s.* per man. The unfortunate masons have thus unwillingly gone on strike; and the labourers are necessarily rendered idle also, although both able and willing to fall in with the proposed arrangement."

Darlington.—The following is a copy of the Rules which the Plumbers' Union submitted to the masters. The refusal of the latter to sign them led to the strike of last week, which still continues:—

1. That the rate of wages be not less than 7½d. per hour, with all the necessary working tools found by the masters. Apprentices just out of their time exempt from this rule for six months with the same employer.
2. That the hours of labour be 53 hours per week—commencing on Mondays, Tuesdays, Wednesdays, Thursdays, and Fridays at 6 o'clock a.m. until 5 p.m., allowing one hour and a half for breakfast and dinner; and on Saturdays from 6 o'clock to 12 p.m., allowing one half-hour for breakfast. All men to be at the shop at 12 o'clock on Saturdays. When exceeding that time to be paid as overtime.
3. When the work is at a greater distance than one mile from the Town Hall, the men shall be allowed time to walk in at the rate of three miles per hour such distance as may be in excess of one mile. And the men shall remain at work on all jobs until 5 o'clock within a circuit of one mile from the Town Hall, but if required to go to the shop, to be at the shop at 5 o'clock.
4. When men are required to lodge away, that lodgings and travelling expenses be allowed, and to be allowed to come home every week's end within a distance of 20 miles, above 20 and under 40 once a fortnight, above 40 once a month; if the men do not come home they will be allowed the train fare.
5. That all overtime be paid at the rate of time and a quarter from 5 o'clock to 9 p.m., and from 9 p.m. to 6 a.m. time and half. Saturdays from 12 o'clock to 12 at night, time and half. Sundays and Christmas Days double time. 53 hours to be worked per week before overtime be charged.
6. That all apprentices be legally bound, and that not more than one apprentice to each man be employed in all shops, and that no improvers be employed.
7. That no non-society man be allowed to work in a shop longer than two weeks unless he joins the society.
8. That no labourers be allowed to do plumber and gas-fitting work.
9. One month's notice in writing shall be given on either side of any alteration of the foregoing rules.

It is stated that the portions objected to by the masters as arbitrary and exacting are the last clauses of rules 1 and 2, the demand of train-fare in rule 4, if the men do not come home; the limitation of apprentices in rule 6; and the exclusion of non-society men in rule 7.

North of England Iron Trade.—For several months past a dispute, involving not merely the successful working, but the very existence of the North of England Iron Trade Arbitration Board, has been repeatedly considered, without a settlement being come to. The ironworkers represented on the Board were called upon to pay half a claim of 663*l.*, losses incurred through the strike of men connected with the Board at the Moor Works, Stockton. Their employers considered that the whole should come out of the

men's pockets, but rather than jeopardise the existence of the Board they agreed to pay half the claim. The men at the several meetings of the Board have not been prepared to pay that share, but on the 6th inst. the operative representatives in the manufactured iron trade of the North of England met at Darlington, and agreed to the employers' proposition.

WHITBY JET MANUFACTURE.

When we say that more than 1,500 persons are employed at Whitby in the preparation of jet ornaments, and that the work supports at least one-fourth of the population of the town, its importance will be seen. Endeavours are being made to improve the artistic character of the work produced, and should be vigorously prosecuted. Every child in Whitby should be taught drawing as it is writing; a good museum should be established in the town, if there be not one already, and courses of good lectures on art should be continuously given. With proper efforts, the interests of the town might be advanced immensely.

We take the following from the *Whitby Times*:—"Sir George Elliot's Jet Prizes.—The prizes given by Sir George Elliot, bart., M.P., for the best works in jet have just been awarded. The committee of the Whitby Institute who had charge of the matter, anxious that the specimens should be well and impartially judged, applied to the Society of Arts, London, for assistance. That Society very kindly undertook the matter, and delegated the duty of judging the works sent up to Professor Tennant and Mr. George Godwin, F.R.S. These gentlemen, in a communication to Mr. Bate, the secretary of the local committee, stated that they have examined the various works in Whitby jet submitted in competition for the prizes offered by Sir George Elliot, and report that they have awarded the prizes as follows:—

Class 1.—For the best necklet of any kind. No prizes awarded.
Class 2.—For the best bracelet of any kind. 1st prize, 2*l*., V. Austin; 2nd, 1*l*., R. Barker.
Class 3.—For the best brooch. 1st, 2*l*., R. Page; 2nd, 1*l*., R. Barker.
Class 4.—For the best ear-drops of any kind. 1st, 1*l*., R. Barker; 2nd, 10*s*., R. Page.
Class 5.—For the best art work of any kind. 1st., 3*l*., W. Baker; 2nd, 1*l*., Thos. Tose.
Class 6.—For the best design of any kind. No prizes awarded.
Class 7.—Young men under 21 years of age.—For the best brooch of any kind. 1st, 1*l*. 10*s*., W. Baker; 2nd, 10*s*., C. Kingston.
Class 8.—For the best bracelet. 1st, 1*l*. 10*s*., W. Baker; 2nd, 10*s*., Thos. Falkingbridge.

The judges add that they do not propose to accept any fee, and are glad to be able to assist in the promotion of so important an industry as the working of Whitby jet. We are sure that the thanks of the Institute and the jet trade are due to Mr. Godwin and Professor Tennant for their kindness and liberality."

It should be mentioned that the names of the competitors were wholly unknown to the judges: the various specimens being submitted to them under numbers alone. The recurrence of the same names in the prize-list makes the mention of this fact the more necessary.

THE ARCHITECTURE OF THE CENTENNIAL BUILDINGS.

THE AMERICAN INSTITUTE OF ARCHITECTS.

At the Convention recently held in Philadelphia,—

"Architecture at the Exhibition" was discussed in an essay by Mr. Richard M. Hunt, of New York. Some of the effects occasioned by the great architectural revival since 1851, the natural outgrowth of the first world's fair and the succeeding ones of London, Paris, and Vienna, were first considered. One of the most useful and practical benefits of these great international exhibitions is the familiar manner in which the industrial arts have been presented to the general public, as well as to the specialist, and which has been of the greatest possible service in educating and cultivating laymen as well as instructing professional students. Alluding to some of the important bearings which international exhibitions have on modern progress, he discussed the location and the buildings themselves comprised in the Centennial Exhibition. "The grounds," he said, "are tastefully laid out as a landscape garden, with asphalted roads and walks following the natural contour of the land. The Exhibition buildings, with few exceptions, are generally well adapted to their various purposes, and are appropriate in design and neatly executed. It is to be regretted, however, that more attention was not paid to the various structures erected by the different States and by special exhibitors. With the exception of a few typical structures erected by foreign nations, little can be said in commendation; in fact, the great majority are beyond criticism, architecturally considered; whereas a proper attention to this important subject would have added much to the exterior beauty of the Exhibition." Speaking of the main building, Mr. Hunt said:—"The general effect of the building is satisfactory, considering its temporary character and the consequent enforced restriction as to cost, and also in view of the materials used, glass and iron. It should be here stated that the columns and trusses are so constructed that they may be taken down and used elsewhere. As might be expected, there is a total absence of anything like monumental grandeur or even apparent substantiality about the building. A certain stiffness and monotony also pervade the whole structure, whilst the relative height, as compared to the vast area covered, produces a squatty appearance. The interior is light and pleasing, but is wanting in effect and variety. On account of the great similarity in plan between Machinery Hall and the main building, the effect produced by Machinery Hall is much the same. The interior of Machinery Hall, however, appears more substantial, due in part to the use of wood in its construction. The admirable arrangement of the hydraulic annex, which forms so marked a feature, is deserving of great praise. As to Agricultural Hall, its disposition is well adapted to its purposes, and it owes much of the effectiveness of its interior to its grand arches springing directly from the ground,—a very satisfactory feature, contrasting favourably with the stilted and rather unstable appearance of the perpendicular supports employed in the two buildings just alluded to. The United States Government Building, with its naves and aisles in the form of a Latin cross, and the Women's Pavilion, in the form of a Greek cross, are effective in their appearance, both externally and internally. This is particularly due to their ground-plan. A peculiar feature of the Art Annex Building is the communication between the numerous rooms, which is provided for in the angles. Good hanging space is thus secured, but at the expense of considerable perplexity to the visitor. The State buildings of New Jersey, Massachusetts, Ohio, and Connecticut are to be commended. Horticultural Hall is constructed in the Moorish style. The *ensemble* is satisfactory, especially when viewed at an angle. Memorial Hall, erected by the State of Pennsylvania and the city of Philadelphia, is by far the most pretentious structure on the Exhibition grounds. At a certain distance the general effect of the mass is rather satisfactory, but upon a nearer approach the building, which is built of granite and designed in the Renaissance style, loses much,—the ornamentation being very commonplace and meagre in design, whilst in execution it leaves much to be desired. Great defects also exist in the interior distribution, amongst the most flagrant of which is the poor accommodations of the upper stories of the corner pavilions. Greater simplicity in design, breadth of treatment, and less ornamentation, would undoubtedly have produced a bolder effect, and been more in harmony with the material used. A want of scale pervades the details throughout; this is especially observable in the main central hall, the dome of which rests clumsily on the walls. In view of the fine and varied exhibits made in paintings and sculpture, it can hardly be said that their sister art of architecture has been fairly represented. The Exhibition is wanting in much that would render it interesting and instructive, not only to the profession but to the public, who would certainly appreciate a thoroughness both in architectural design and construction which prevailed abroad and is wanting with us, due to more scientific and judicious use of the various building materials and to the higher standard of taste which naturally prevails in the Old World. The important problem, viz., the amelioration of the dwellings for the labouring and industrial classes, has been almost entirely ignored. This absence is especially to be remarked upon, so much attention having been paid to this subject, particularly since the Paris Exhibition of 1867. That such buildings can be made a practical success is proved by the report of the 'Improved Industrial Dwellings Company, of London,' which states that no less than 10,000 persons occupied dwellings under their control in January, 1876, while their available capital was then 1,000,000*l*."

BUILDING IN CHELSEA.

The report of the surveyor (Mr. G. H. Stayton, C.E.), which appears for the first time this year, shows that sanction has been given by the Vestry to the construction of nearly six miles of new sewers. In addition to the above, the Vestry have taken up and relaid a number of old sewers, and have constructed additional sewer ventilators, new gullies, and two new public latrines in the parish.

Six miles of new streets have been sanctioned during the year. Notices of intention to build no fewer than 2,294 new houses were given to the Vestry, the proposed drainage thereof being approved. The surveyor observes,—

"The erection of so large a number of houses is a most important matter, inasmuch as provision will thus be made for an increase in the population of the parish of upwards of 20,000 in a period of a little over a year (?). Of that number it is expected that a provision for 16,000 people will be made on the Queen's Park Estate alone."

ST. BUDEAUX CHURCH, PLYMOUTH.

This, the daughter church of St. Andrew's, Plymouth, has been re-opened by the Bishop of Exeter after a thorough restoration. Built not long after the Reformation, and at a time when very little was thought of Gothic architecture or ecclesiastical art of any kind, this structure is interesting as showing how the old forms of church construction lingered in the country after the spirit of them had departed. Roger Budockshed erected the three aisles, but either forgot or intentionally omitted the chancel. In other respects his masons kept pretty closely to the Devonshire church type, and the pillars and arches, the windows and doorways, are much the same as in the churches built a century or more earlier, only that the details are coarser and less exact. Here and there may be noticed an eccentric label or string-course entirely un-Gothic in character, and attributable, no doubt, to the insubordinate taste of one or two of the founder's workmen.

A chancel has been formed at the eastern end of the nave, surrounded by a low screen moulded and pierced with quatrefoils. Within the chancel are the choir-seats, having oak ends, with carved poppy-heads.

The ancient font, which has not been in use for a great number of years, has been restored and placed on a granite cross in the pavement at the west end of the central passage, outside the tower arch.

The lower portion of the opening into the tower is occupied by a screen of pitch pine, traceried, and having glazing in the heads.

The interesting monuments of the Fortescue, Trevill, Knighton, Byard, and Stukeley families, have been restored in proper colours by Mr. Fouracre, at the cost of the representatives of the respective families. The fine monument to the memory of the Georges will, it is hoped, be soon taken in hand.

The contractor for the restoration of this church was Mr. Hoskin, of King's Tamerton. The restoration has been carried out from the drawings and under the direction of Mr. James Hine, Plymouth.

The great Sir Francis Drake was married in this church, and his wife was buried here. During the civil war of the seventeenth century, it was occupied by the Royalist troops, who did it much injury.

MESSRS. DOULTON AND THEIR BRICKLAYERS.

Sir,—In your issue of the 4th instant appears an extract from a letter upon the above subject from Mr. Coulson, the secretary of the Bricklayers' Society. On this I beg to offer a few remarks. First, as to the "contention." What contention? Who are the contending parties? I take it as a recognised principle there must be two parties to a contention. Here we see on one side Mr. Coulson, as representing the Bricklayers' Society, but where is the other contending party? Mr. Coulson assumes that the Messrs. Doulton occupy that position; but how can he bear out his assumption? I opine that from the hour those bricklayers struck work—no matter what the cause,—and received the wages due to them, the Messrs. Doulton ceased to be a party to the contention. It was perfectly optional on the part of the firm whether they should employ these men, and on the part of the men whether they chose to be so employed:

consequently, the men had perfect liberty to leave work as they did, but in doing so all connexion with the firm ceased. And, according to the law of common sense and reason, and, moreover, the law of England, Messrs. Doulton were at perfect liberty to engage others in their stead, which, if I am rightly informed, they have done, and, having done so, it is downright nonsense to talk of the contention as between Messrs. Doulton and their bricklayers. Had the men through their society succeeded, by their dog-in-the-manger tactics, in preventing the firm from obtaining other bricklayers, it might perhaps have been argued that they were, or at any rate they might have been induced to become, a party to the contention; but, were they *compelled* to employ bricklayers at all? Could they be denied the right to construct their buildings entirely of terra-cotta, and employ plasterers or masons to fix it, or of concrete, and employ labourers to execute the work? Is there any law to prevent them adopting either course, or any other practicable one that would answer their purpose? Well, then, how can it be said they are a party to this contention, unless they choose? But Mr. Coulson, seeing he failed to force them, is now trying persuasion; he even condescends to offer them the privilege of accepting or rejecting the parties selected to form the Board who are to decide. To decide what? Most likely that the firm were wrong from the first, in not submitting to be dictated to as to how they should conduct their business arrangements or spend their own cash. It is pretty certain that any other decision would fail to satisfy Mr. Coulson or his constituents. If Mr. Coulson had been so anxious to have this and all such other matters submitted to a Board of Conciliation, why did he not prevail upon the men to keep to their work, and in the meantime apply for arbitration? He would have shown at least some consistency. What would be thought of a magistrate who sentenced a prisoner before he had investigated the charge against him?

Again, does Mr. Coulson believe architects would consent to be dragged into such controversies? I doubt it; but even if they would, why architects? When arbitration was first named in reference to this matter, the Society suggested that representatives from the different trades should form the Board. Now, architects are named as more likely to catch, and if this should succeed, it is coolly proposed to apply the process to all future employers who should fail to accommodate their business arrangements to the complete satisfaction of the several societies in the building trade.

To conclude, I beg to suggest that a great blunder has undoubtedly been made, originating over a *few* pots of beer, which reflects but little credit upon Mr. Coulson or his constituents, and the sooner the subject is left to die out the better for all concerned. AN OUTSIDER.

THE CITY COMPANIES AND THEIR HALLS.

MR. ROBERT TAYLOR, the chairman of the Lambeth Vestry, and one of the representatives from that body at the Metropolitan Board of Works, and who is also a member of the Corporation, delivered a lecture last week at the new parochial room, Brixton, on the "City Guilds," in which he made some interesting references to the origin, property, and general character of these guilds, and gave descriptive notices of the halls and buildings belonging to several of the companies. There were no less than eighty of these City guilds. All historians agree as to their great antiquity. As to their origin, it might be traced to those combinations which, in a commercial country such as ours, grew up from influences that for four centuries had been gradually imported from Rome. After sketching the history of many of the companies, and dwelling upon the revenues, charities, and hospitalities, he alluded to the princely halls belonging to many of them, more especially to that of the Drapers' Company. Its alabaster staircase, and the fittings, together with all the arrangements, were the most extraordinary and costly that he knew of. As a proof of the enormous increase in the price of land, he stated that the garden in which the members of the Drapers' Company formerly took their walks, had been let for building purposes at a ground-rent of 10,000*l*. a year. He adduced the schools and institutions which the companies from time to time built, and the various charities which they supported, as a proof that they were not so selfish as they were represented to be. He admitted that they enjoyed themselves, and he asked why should they not? Their wealth, he said, had come to them from their ancestors, and had been well nursed, whilst the original objects for which the guilds had been established had been carried out; and so long as that was done he did not see by what right they could be interfered with.

BERKS ARCHÆOLOGICAL AND ARCHITECTURAL SOCIETY.

THE annual general meeting of this Society took place at Reading on the 25th ult., Mr. Joseph Morris presiding. The annual report recorded the continued steady progress of the Society during the past year. Forty-three new members had been elected since the last report was presented, and eight names had been withdrawn, chiefly owing to removals from the district of the Society's operations, so that the actual numerical increase was 35, the total number of members being 142, viz., 9 life members, 95 ordinary members, 31 lady members, and 7 associates. The committee, acting under the provision of Rule 11, had appointed Mr. E. J. Shrewsbury as local secretary for the Maidenhead district. There had been two general and three committee meetings held during the year, and two excursions. At the general meeting held on the 6th of April, a paper on "Chancel Screens and Roods" was read by Mr. C. C. Rolfe. The report then referred to the success which had attended the two excursions, and thankfully mentioned the great assistance rendered on the occasion of the excursion to Stratford-on-Avon and Warwick by the Rev. Dr. Colles and Mr. J. Tom Burgess; and of the second excursion to the Wantage district, by Mr. S. E. B. Pusey. The report concluded by strongly urging upon the members of the Society the desirability of increasing the Reference Library. The financial position of the Society continued good, all accounts received up to September 29th, 1876, having been paid, and a balance in the hands of the treasurer of 23*l*. 3s. 3d. remaining, which, with 7*l*. for arrears, made an aggregate of 30*l*. 3s. 3d. The report was adopted.

HITCHINS'S RAPID SYSTEM OF PLASTERING.

By the use of this system, the lathing and two coats of plastering, with lime and hair, give place to large slabs fixed to the joists, which form the body of the ceiling at once. The edges of these slabs are bevelled reverse ways, and fit into each other so that the stopping cannot be shaken out. The face of the slabs are made rough, and the whole receives a thin finishing coat of cement or stucco, which effectually conceals the joints, and produces ceilings of good appearance. By this means no time is lost in waiting for drying; and the annoyance of dirt and rubbish caused by mixing, and using lime and hair, is entirely avoided. The manufacture of the slabs may be briefly described. A sufficient quantity of plaster and fibre is mixed with glue-water; half of this, while in a plastic state, is spread evenly upon a plate-glass bench, the edges of which are raised ½ in. and bevelled. A sheet of strong open canvas is then stretched tight across, and wrapt round two laths which are embedded in the two opposite edges of the slab. The object of having these laths is to tighten the canvass, and stiffen the edges of the slabs in their span from joist to joist. The remaining portion of the plaster and fibre is spread evenly upon the canvas, which then remains firmly embedded through the centre of the slab. A bass broom is then passed over the face of the slabs to form a "key" for a finishing coat. When sufficiently set, the slabs are removed from the bench, and exposed to the air to dry. These slabs are made 2 ft. 6 in. wide, and of sufficient length to reach across four joists, and are secured to the joists by driving 1½ in. zinc nails through the laths before-mentioned, and about 4 in. apart, along wherever the joists come. The joints are then roughly stopped with cement, and the whole receives a thin "setting" or finishing coat of cement or "stucco," as in the ordinary way. The system certainly has its advantages.

STATUES.

Prince Bismarck.—A memorial statue is to be raised to Prince Bismarck at Cologne. Public competition having been invited, no less than twenty-seven artists have sent in models in a variety of postures, and indicating a variety of conceptions.

The Right Hon. C. P. Villiers.—A meeting of the committee appointed to consider the form which should be taken by the proposed memorial to the Right Hon. C. P. Villiers was held in the Town-hall, Wolverhampton, on the 30th ult. A letter from Mr. William Theed was read, stating that very hard Sicilian marble would be adapted for Wolverhampton, or any out-of-door purposes. He mentioned, as examples, his statue of the late Sir Robert Peel, erected at Huddersfield, and his group of "Africa," at the Albert Memorial in Hyde Park, both of which were executed in that material, which was very easily kept clean. The durability of bronze, he said, was unquestionable, but it soon lost its original appearance, and became black and dirty-looking. A replica of the statue just completed for the new town-hall in Manchester, of the same size, in statuary marble, could be executed for 700*l*. The same statue, increased in size to between 8 ft. and 9 ft., for out-of-doors, in hard Sicilian marble, including granite pedestal, would cost 1,000*l*. If bronze should be determined upon, the total cost of the statue would be 1,150*l*. It was resolved "That the offer of Mr. Theed, for the execution of a Sicilian marble statue for 1,000*l*, be accepted." The selection of a site was deferred until the completion of the statue.

Sir James Simpson.—Mr. William Brodie, R.S.A., has now given the finishing touches to his bronze statue of the late Sir James Y. Simpson, and the work is ready to be removed to its place in Princes-street, Edinburgh. The casting produced by Messrs. Masefield & Co., Chelsea, is stated to be one of remarkable excellence, reproducing the artist's design with the utmost fidelity to every detail of modelling and texture. The statue represents the Professor in his robes, and seated; and is one of the finest of the many works of art produced by the eminent sculptor.

The Hyde Park "Achilles."—The *Lancet* regrets to state that "Achilles," who was presented to Arthur Duke of Wellington by his countrywomen, and who was made presumably of the best gun-metal, shows symptoms of decay which must ultimately prove fatal. The sulphurous acid in the London atmosphere has been too much even for his iron constitution. His right shin is covered with a serpiginous ulceration; his thighs, like those of Sir Simeon Stylites, are "rotted with the dew," and daylight comes sadly through the very centre of his shield.

Books Received.

Lectures, Reports, Letters, and Papers on Sanitary Questions. By ROBT. RAWLINSON, C.B., &c. London: P. S. King. 1876.

WHENEVER a sanitary question has come prominently before the public, Mr. Robert Rawlinson has seldom failed to throw such light upon it through the newspapers as his large experience and matured judgment prompted. Some of these contributions collected together, some able papers read at the Society of Arts, a lecture on Meteorology delivered at Chatham, and his Report on the Drainage of Windsor Castle, form the little volume now before us. It is full of valuable information clearly conveyed, and deserves other than a paper cover. It is appropriately inscribed to Mr. Edwin Chadwick.

Miscellanea.

A Machine for Cleaning Water-Pipes.—We noticed a few weeks ago the method adopted at Elgin for cleaning old water-pipes by heating them in a furnace, and so removing the incrustation. The *Elgin Courant* gives particulars of an experimental attempt to clean the incrustation out of pipes not intended to be lifted; and though all that was contemplated was not accomplished, it was proved that the thing can be done. A little machine, about 3 ft. in length, was obtained some time ago from Mr. Kennedy, Kilmarnock, who has a patent for it. It consists of two pistons and two series of flanges that exactly fit into the water-pipe intended to be cleaned, the pistons being about an eighth of an inch under the inside size of the pipe, while the flanges press hard against it, and take off the incrustation. The machine was put into the pipes at the railway crossing at Linkwood. The full force of the water was then put on, and away the machine went, grinding through the pipes, and clearing off every obstruction, making a noise like a railway train heard a quarter of a mile off. Unfortunately, it stuck at an air-cock at the back of the New Cemetery, where there had evidently been some fixed obstruction, which it could not overcome. Notwithstanding the accidental hitch, enough was done to prove that the pipes, at a mere trifling expense, can be cleaned without lifting.

Art Endowment in Birmingham.—The *Birmingham Gazette* understands that at a meeting of the School of Art Committee on the 26th ult., Mr. Arthur Ryland attended on behalf of the donor of 10,000*l*.; that a deed of trust was executed for the administration of the fund in accordance with the scheme prepared by the committee and approved by the donor; and that Mr. Ryland paid 6,000*l*. of the fund to the treasurer, the other 4,000*l*. to be handed to the committee at the time appointed in the deed of trust.

The North Sea Canal.—The King of Holland has opened, in person, the greatest engineering work which his country, so prolific in such works, has ever undertaken. The idea of joining Amsterdam with the sea by a direct communication had long been entertained and investigated by various committees, and though many were incredulous of its ever being possible to carry out such a work, a concession was given in 1861. In 1863 a company was formed, and in 1865 the well-known firm of contractors, Messrs. Henry Lee & Sons, of Westminster, undertook the execution of the entire work for a sum not far short of two millions and a half sterling. The first part was executed by Messrs. Lee, in conjunction with, and under the management of, Mr. T. C. Watson, C.E. The engines and pumps, constructed by Messrs. Easton & Anderson, are the largest in Holland, being each seventy-five horse-power, and discharging together over 74,000 cubic feet of water per minute. The second part was in the hands of the late Mr. S. Freeman, C.E., but its completion is now entrusted to Mr. Watson. It consists of cutting the canal through the sandhills or dunes near the North Sea, and of the construction there of large locks with two basins, the bigger one being able to accommodate vessels 390 ft. long, 59 ft. wide, and drawing 27 ft. of water. Mr. Darnton Hatton, C.E., has charge of the third portion, which consists of making a harbour on the coast at the entrance of the canal. It is situated just half-way between the Hoek van Holland (entrance into Rotterdam) and the Helder or Nieuwe Diep, which are nearly 100 miles apart. This extensive work was planned by Sir John Hawkshaw. He and Mr. Waldorp are the consulting engineers for the company, and Mr. Dirks is the resident chief engineer.

An Ipswich Building Estate.—The estate recently purchased by the Freehold Land Society, and abutting upon the Norwich-road, Chevallier-street, the Bramford-road, and Bramford-lane, Ipswich, has been divided into 100 allotments. All these roads will be made up, kerbed, channelled, and drained in accordance with the specifications of the borough surveyor, and in due course will be handed over to the town authorities, and the outer fencing, &c., will be constructed by the Society. Tenders for making the roads and for the fencing were as follow:—

For Making the Roads only.—T. Ruddock, 1,163*l.* 10s.; A. Flude, 839*l.*

Roads and Drainage.—C. Fisk, 1,090*l.*; J. B. and F. Bennett, 1,000*l.*

Drainage.—H. B. Smith, 291*l.*; S. Blasby, 285*l.*; T. Ruddock, 203*l.* 12s. 9d.

Fencing.—C. Hastings, 16s. 9d. per rod, 11s. 6d. each gate, and 4*l.* 10s. to remove and refix old fencing; J. Hobart, 14s. 9d. per rod; R. Girling, 14s. 6d. per rod and 3s. 6d. per rod old fencing; J. Mallett, 13s. 6d. per rod; J. B. and F. Bennett, 250*l.*; J. C. Pells, 220*l.*; H. B. Smith, 219*l.*; T. Ruddock, 185*l.*; Jas. Barker, 175*l.* 10s. (sent in too late).

The tender of Messrs. Bennett was accepted for the roads and drainage, and that of Mr. Mallett for the fencing.

New Factory Regulations.—Some important amendments on the law relating to the employment of children in workshops and factories are introduced by the new Elementary Education Act, which comes into operation on the 1st of January next. With the view of giving those interested timely notice of these changes, Mr. Alexander Redgrave, her Majesty's Inspector of factories, has addressed circulars to the occupiers of factories and workshops, and to the parents of the children employed therein, in which he explains their new responsibilities. After the 1st of January, 1877, it will be illegal to employ a child under nine years of age, and on January 1, 1878, the limit will be raised to ten years. Children must attend school from the first day of their employment, either morning or afternoon, on every day on which the school is open, or both morning and afternoon on every other day, in every week. They must also attend an efficient school in any school district which has been declared to be provided with sufficient school accommodation.

The "Clinometer."—A small instrument with this designation has been invented by Mr. Alon Bagot, of Rugeley, and, according to the *Staffordshire Advertiser*, it promises to supersede in a great measure the unwieldy and complex impedimenta of the surveyor. It is alleged that by the aid of this diminutive instrument,—it is 6 in. in length, and only weighs as many ounces,—trigonometrical surveying, levelling, and calculations hitherto necessitating the use of the theodolite and dumpy level can be accomplished with a great saving of labour.

Sale of New River Shares.—At the Auction Mart, on the 1st inst., Messrs. Edwin Fox & Bousfield sold some New River shares. One-thirtieth of a King's Original Share was first submitted, and after a spirited competition, realised 3,135*l.*, or at the rate of 94,050*l.* for an entire share. The speciality of these shares is that they are freehold property, and even a fractional part confers votes for the counties in which the company's estates are situated. Twenty-nine of the 100*l.* New Shares (70*l.* paid) were next offered, and were all sold at 310*l.* and 315*l.* per share. These are the highest prices ever obtained, and a considerable increase on those obtained by the same firm at their sale in June last, when the King's Share realised at the rate of 88,000*l.* per share, and the New Shares, with 60*l.* paid, fetched 285*l.* to 295*l.* At the early part of this century a King's Share was sold for 7,000*l.*; and even at Messrs. Edwin Fox & Bousfield's sale of these shares in 1870, the price of a King's Share was 42,360*l.*, which was at the time thought to be remarkably high.

A Hint from Mark Twain.—It is stated that a short time ago Dean Howson was lecturing in the choir of Chester Cathedral to a number of well-dressed persons. On leaving the choir for the nave the dean gave strict orders for the choir to be cleared. In apology for what seemed a harsh command, he informed his hearers that a few days previously he had discovered a "gentleman" in the act of cutting off the wing of an angel from some carved work. There is no real occasion to do this sort of thing. Mark Twain, in his new Pilgrim's Progress, gives an interesting description of a fellow-traveller, whom he refers to as Old Blucher, who would pick up a stone in any out-of-the-way place, and, after breaking it into twenty or more fragments, would label the pieces with the names of as many distinct and widely-apart localities, remarking, "The old woman will not know the difference."

Bad Management of "Improved Dwellings."—The *City Press* publishes the following letter:—

"Sir,—We, the undersigned inhabitants of Granville-buildings, Luke-street, wish, through the medium of your paper, to give publicity to the disgraceful state of things existing in these so-called 'Improved Dwellings.' In some instances where there are large families there is no water from mid-day until the next morning; also very offensive smells arising from closets where the water is cut off, simply because they require some little repairs, and if respectable tenants request that it may be attended to, they only receive insults, and are told, if they do not like it, to go as soon as they please. Two children were removed last week through illness. It cannot be a matter of surprise that there should be an outburst of disease, or that it may rapidly spread in these (in some cases) overcrowded dwellings, with a very scanty supply of water. This has long been a great grievance to the respectable portion of the tenants,—in fact, such will not now go into them, or remain long if they do."

[Here follow the signatures of twelve residents.]

Chinese Overcrowding in San Francisco. Mr. Thomas J. Vivian, in *Scribner* for October, says:—"Fifteen Chinamen will live, sleep, and cook in a hovel or cellar 12 ft. square, having only a door as a means of admitting light and air. Clouds of rancid smoke issue continually from the common chimney, window, and door, through which John and his fellows may dimly be seen crawling, cooking, smoking, and sleeping; for when Coo Lee has nothing to do, he generally crawls into his hole to sleep or smoke. The large companies' boarding-houses are no better. Every story is reflloored, and made into two, and often three, the standard height of a room being a trifle over or under 5 ft. Clean at first, the building soon becomes grimy, and then black, and then dirt-encrusted from garret to roof. Once occupied by Chinese, a building must always remain a pest-hole, or be torn down."

Pevensey Church.—An appeal is being made by the vicar and churchwardens of the parish of Pevensey for assistance in "the faithful and legitimate restoration" of their venerable church. Mr. Gilbert Scott, jun., the architect who has been called in, reports that the condition of the building is about as bad as it can be, and points out what is necessary to be done. The estimate is:—Nave, 2,200*l.*; tower, 400*l.*; chancel, 790*l.*; and side chancels, 970*l.*; making a total of 4,270*l.* About 2,380*l.* have already been paid or promised.

All Souls' Chapel, Oxford.—With reference to particulars of work here, quoted in our last from an Oxford paper, Mr. Maurice Geflowski writes to say that he executed the carving of the reredos, not Messrs. Farmer & Brindley; the erection of the reredos being entrusted to Mr. E. E. Geflowski.

The Alexandra Palace.—Two petitions for the winding up of the Alexandra Palace Company were presented on the 24th ult. before Baron Huddleston, the vacation judge. The first petition was that of the company, supported by the London Financial Association; Messrs. Kelk & Lucas, contractors; Messrs. Barclay, Bevan, & Co., bankers; and other creditors, for about one million sterling. The second petition was presented by Messrs. Wright & Son, trade creditors, who opposed the making of a winding-up order on the company's petition. His Lordship made a compulsory winding-up order on the company's petition, and dismissed the second petition with costs.

Edinburgh and Leith Engineers' Society. The first meeting of this Society for the session was held on the 1st inst., Mr. A. Leslie, C.E., in the chair. The opening address to the members was delivered by Mr. W. Allan Carter, C.E., who first directed attention to the great success with which blasting had been conducted in the Holyhead quarries and at Hell-gate Reef, pointing out that this success raised the question for the serious consideration of engineers, whether it would not be more economical as well as more advantageous in every respect to undermine and blow away such rocks as the Bell Rock and Eddystone Rock, rather than risk the erection of lighthouses, not only costly to build, but also costly to maintain.

Extension of Aberdeen Harbour Works. Sir John Hawkshaw and Mr. James Abernethy, C.E., consulting engineers for Aberdeen Harbour Works, paid a visit to the port recently, and they have communicated to the Harbour Commissioners their suggestions with regard to a proposed extension of the north pier. The report concludes with the following sentence:—"Having regard to the long periods elapsing between the official communications made to us and our consequent visit to Aberdeen, variations in the order and manner of executing the works have occurred, for which we are not responsible, nor, under the circumstances, for the expenditure incurred in carrying out the works."

St. David's Cathedral.—The *Western Mail* states that on the 24th ult., Mr. King, Sir Gilbert Scott's assistant, visited St. David's Cathedral for the purpose of examining the west front, that portion of the grand old edifice which is to be restored as a memorial to the late bishop of the diocese, Dr. Connop Thirlwall. The earth surrounding the foundation was cleared away, and it was found to be in a very sound condition. By excavating, a flight of three stone steps in perfect preservation was discovered leading from the west door. These steps are supposed to be part of the old road leading from the cathedral to Bishop Gower's Palace.

Uncourtly Buildings.—The judge of the Wrexham County Court took a vigorous step the other day in adjourning the proceedings for a week in consequence of the unwholesome state of the court-room. The registrar has at present no option but to hear cases in the same court with the judge. Unfortunately, this is far from being the only wretched county-court building in North Wales. At Bangor, an old and miserably small chapel is used; at Llanrwst, the apartment is little better than a loft; and at Holyhead, even the darkness and unwholesomeness of Wrexham are eclipsed.

Iron Rails v. Steel Rails.—The Darlington correspondent of the *Daily News* states that the experiments which have been carried on by Mr. I. L. Bell, M.P., at the instance of the North-Eastern Railway Company, with the view of producing a cheap and durable iron rail, have been singularly successful. It is affirmed that iron rails, more durable than steel rails, can be produced by a new process, at a much less cost and at a price but 1*l.* per ton in excess of ordinary iron rails. Steel rails, when worn out, are worth little, but iron rails are worth two-thirds of their original value for reconversion.

The Docks at Wisbech.—The Town Council of Wisbech have decided to promote a Bill in the next session of Parliament for the construction of a floating dock, and for making a new channel for the river Nene from a point just below Wisbech. The estimated cost of the works is 192,000*l.* Captain Wood, of London, has undertaken to pay the expenses of the Bill in passing through Parliament, and will contribute 50,000*l.* towards the capital required. A meeting of the ratepayers has been held, and the scheme was approved by a large majority.

"The Oxford Arms, London."—One of the most interesting examples remaining of the old London Inn, with its external galleries, is "The Oxford Arms" in Warwick-lane, close to Newgate. Its destruction is imminent, so Mr. John Sandford, of Goldhawk-road, Shepherd's-bush, has made a capital set of photographs of the old place, which will be prized by all who are interested in the antiquities of London.

Adams's New Circus in Leeds.—Mr. Adams has built a new circus on the site formerly occupied by Mr. Newsome's circus, between Portland-crescent and Cookridge-street. The building is 122 ft. long by 84 ft. wide. The whole has been designed by Mr. Henry Mortimer, the general manager. The circus will accommodate 5,000 people. The decorations are by Messrs. Dawson Bros., Leeds. The roof is supported by ten columns upon each side.

Society of Arts.—A course of lectures on the History of the Art of Coach Building is about to be delivered by Mr. George A. Thrupp. The first, on November 20th, will treat of the carriages of the ancient world,—Egypt, Syria, Greece, and Rome, and native carriages of Hindustan. Workmen connected with the trade can obtain tickets for a nominal fee.

The Laws of Health.—It is proposed by the council of the Trades' Guild of Learning, in conjunction with the committee of the National Health Society, to organise a course of twenty lectures on the Laws of Health, to be delivered by Dr. W. H. Corfield, in the large room of the Society of Arts, by permission of the council of that Society, on consecutive Saturdays, commencing November 11th.

Tollgates between London and Brighton. It has been reported that on and after Nov. 1st all the tollgates on the road between London and Brighton were to be abolished. This, says a Brighton paper, is too good to be true. Certain gates, opposed by the Brighton Town Council, on the Cuckfield-road, have been removed; but many are still left.

TENDERS

For alterations, additions, and repairs to the late Governesses' Asylum, Prince of Wales-road, Kentish-town, for the purposes of the lower school to be called the Camden School for Girls. Mr. E. C. Robins, architect. Quantities by Mr. G. R. Tasker:—

		Less old materials.
Brass	£7,665 0 0	£2 0 0
Adamson & Co.	6,868 0 0	168 0 0
Kelly Bros.	6,583 0 0	150 0 0
Scrivener & White	6,514 0 0	116 0 0
Manley & Rogers	6,477 0 0	193 0 0

For Congregational church and other buildings at Preston, near Brighton. Mr. J. G. Gibbins, architect:—

Lockyer	£4,829 0 0
Barnes	4,446 0 0
A. & J. Stenning	4,336 18 0
E. Nash & Co.	4,125 0 0
Bruton	3,785 0 0
Cheesman & Co.*	3,720 0 0

* Accepted for a portion.

For schools in Norfolk. Mr. J. M. Hooker, architect. Quantities supplied by Mr. Thomas Ladds.

For St. Peter's, Upwell:—

Rhands	£3,612 0 0
Saint	3,532 0 0
Allister	3,300 0 0
Farrow	3,280 13 0
Elworthy	3,187 0 0
Dawes	3,154 16 0
Broadhurst	2,811 0 0
Everson (Egbert)	2,800 0 0
Everson (Edgar)	2,670 0 0

For Lakesend:—

Rhands	£1,637 6 0
Saint	1,462 0 0
Farrow	1,358 6 0
Broadhurst	1,357 10 0
Elworthy	1,239 6 3
Dawes	1,221 0 0
Everson (Egbert)	1,170 0 0
Everson (Edgar)	1,160 0 0

For Nordelph:—

Rhands	£1,830 8 0
Saint	1,598 0 0
Allister	1,481 0 0
Broadhurst	1,450 10 0
Farrow	1,397 7 0
Dawes	1,347 0 0
Elworthy	1,340 13 2
Everson (Edgar)	1,198 0 0
Everson (Egbert)	1,183 0 0

For the erection of new board schools, with teacher's residence, Harmondsworth, Middlesex. Mr. E. H. Lingen Barker, architect:—

Wickes	£2,370 0 0
Garratt	2,341 1 0
Ball	2,307 13 11
Hardy	2,278 18 6
Kean & Sons	2,201 11 3
Taylor	2,200 0 0
Messom	2,197 0 0
Kearley	2,139 0 0
Gibson (accepted)	1,990 0 0

For alterations and additions to No. 8, Chapel-place, Ramsgate, for Rev. R. Patterson. Mr. Robert Wheeler, architect:—

Duckett (accepted).

For new buildings for the Builth Public Hall and Market-house Company (Limited). Messrs. Haddon Bros., architects:—

Stephens & Bastow	£3,542 0 0
Sholl & Jones	3,256 0 0
D. G. & D. Davies (accepted)	3,120 0 0

For four shops and manufacturing premises, Tottenham Court-road. Messrs. Ford & Hesketh, architects:—

Newman & Mann	£13,476 0 0
Jackson & Shaw	13,081 0 0
Simpson & Sons	13,035 0 0
Perry & Co.	12,946 0 0
Ashby Bros.	12,778 0 0
Peto Bros.	12,589 0 0
Kirk & Randall	12,550 0 0
Downs & Co.	12,529 0 0
Brass	12,372 0 0
Adamson & Sons	12,274 0 0
Dove Bros.	12,119 0 0
Scrivener & White (accepted)	11,702 0 0

For main sewerage works, Preston-road, North Shields. Mr. J. P. Spencer, engineer:—

Contract No. 1, exclusive of ironwork.

Bell	£1,186 0 0
Hall	1,132 4 6
Smith	1,149 0 0
Craig	1,055 15 0
Atkinson	800 0 0
Harvey (accepted)	780 0 0

For stables, &c., Whitehill, Luton. Mr. T. C. Sorby, architect. Quantities by Mr. J. Scott:—

Gregory	£874 0 0
Spencer	813 0 0
Patman & Co.	803 0 0
Tayler	793 0 0
Smart	750 0 0
Sharman	680 0 0

For gardener's cottage, Bramingham, Luton. Mr. T. C. Sorby, architect. Quantities by Mr. J. Scott:—

Miskin	£637 0 0
Gregory	637 0 0
Spencer*	605 0 0
Sharman	590 0 0

* Accepted at 569*l*.

For the erection of a warehouse, St. John-street, Smithfield, for Mr. E. N. Parker. Mr. Charles Bell, architect. Quantities by Mr. Henry Lovegrove:—

Kilby	£8,290 0 0
Thompson	8,260 0 0
Coleman	8,120 0 0
Scrivener & White	8,115 0 0
Marsland	7,997 0 0
Bangs	7,890 0 0
Woodward	7,700 0 0
Niblett	7,700 0 0
Downs	7,689 0 0
Tarrant (accepted)	7,272 0 0

For the erection of a Wesleyan chapel, at Clacton-on-Sea, Essex. Mr. Charles Bell, architect. Quantities by Mr. Henry Lovegrove:—

	In brick.	In concrete.
Hook & Oldrey	£2,467	£2,382
Turtle & Appleton	2,399	2,299
National Co-operative Builders' Society	2,230	1,994
Regis*	2,049	1,739
Saunders & Son	2,030	1,987

* Accepted for concrete, subject to modifications.

For the erection of Wesleyan schools at Clacton-on-Sea, Essex. Mr. Charles Bell, architect. Quantities by Mr. Henry Lovegrove:—

	In brick.	In concrete.
National Co-operative Builders' Society	£859	£685
Hook & Oldrey	821	697
Saunders & Son	695	636
Regis	690	612
Turtle & Appleton	525	430

For roads and sewers at Westcott-place, Swindon, for Mr. A. L. Goddard, M.P. Mr. W. Read, surveyor:—

Wiltshire	£561 0 0
Phillips	540 0 0

For offices, stables, &c., Wootton Bassett, in connexion with brewery, for Mr. H. Horsell. Mr. W. H. Read, architect:—

Barrett (accepted)	£926 3 8

For house and shop in Bridge-street, New Swindon, for Mr. J. Green. Mr. W. H. Read, architect:—

Phillips	£659 0 0
Forshaw	633 4 4
Barrett	610 10 0
Wiltshire (accepted)	601 10 0

For two houses in the Estcourt-road, Watford, for Mr. Marshall. Mr. C. L. Humbert, architect. No quantities given:—

Clifford & Gough	£820 0 0
Pratt	785 0 0

For erection of north wing and completion of the hospital, Swansea. Mr. Alex. Graham, architect. Quantities by Mr. Samuel Thacker:—

Morgan	£10,643 0 0
Richards & Billing	8,739 0 0
Jones & Co.	8,447 0 0
Lewis	8,235 0 0
Davies	7,801 0 0
Watkins & Jenkins	7,755 0 0
White	6,820 0 0

For carcass of second house and shop at Harrow-on-the-Hill, for Mr. W. Winkley:—

Staines & Son (accepted)	£376 0 0

For two pairs of cottage residences at Cranborough-cross. Messrs. Satchell & Edwards, architects:—

Paine (accepted)	£1,320 0 0

For new cellars, alterations, repairs, &c., to premises, Folkstone, for Mr. F. J. Jarvis. Mr. Burgess J. Reeve, architect:—

Webster	£286 0 0
Prebble	180 0 0
Dunks	164 10 0
Brooks & Slade (accepted)	160 0 0

For the erection of five houses and stabling, &c., in Mare-street, Hackney, for Mr. E. Hook. Messrs. Lee & Smith, architects:—

Stamp & Bowtle (accepted).

For the erection of detached residence and stabling, for Mr. R. Dyson, Barry-road, Peckham-rye. Mr. Alfred Wright, architect. Quantities supplied:—

Nutt	£1,806 0 0
Marsland	1,747 0 0
Mallett	1,746 0 0
Almond	1,670 0 0
Phelps & Rice	1,589 10 0

For two shops and dwelling-houses at Park-side, Knightsbridge, for Mrs. E. A. Gamble. Mr. F. Nesbitt Kemp, architect:—

Smith (accepted)	£2,200 0 0

For Adcot Manor, near Shrewsbury, for Mrs. Darly. Mr. R. Norman Shaw, architect:—

Jarrett	£22,800 0 0
Horsman	22,000 0 0
Treasure & Sons	20,877 0 0
Lovett	20,000 0 0
Braid & Co.	18,690 0 0
Brass	17,997 0 0
Lascelles	17,860 0 0
Hale	16,455 0 0

For additional story to 31, Belgrave-square, and alterations to stables in rear, for Mr. C. Mecking. Mr. C. J. Shoppee, architect:—

McLachlan	£1,886 0 0
Colls	1,678 0 0
Bywater	1,476 10 0
Braid & Co.	1,469 0 0

For the erection of offices in Chancery-lane, for Mr. W. J. Bayley. Mr. H. H. Bridgman, architect. Quantities by Messrs. J. & W. Barnett:—

Burman (late Willson Bros.)	£2,473 0 0
Hunt	2,363 0 0
Kelly Bros.	2,332 0 0
Scrivener & White (accepted)	2,241 0 0

For the erection of lavatories, water-closets, &c., at the St. Pancras Workhouse, for the Guardians of the Poor. Mr. H. H. Bridgman, architect:—

Builders' Association	£580 0 0
Manley & Rogers	576 0 0
Sharman	575 0 0
Steed Bros.	567 0 0
Burman (late Willson Bros.)	550 0 0
Prebble (accepted)	493 0 0

For new stables at the Old King's Head, Upper Clapton, for Messrs. Truman, Hanbury, & Buxton. Messrs. Williams & Sons, architects:—

Marr (accepted).

For alterations at the Bricklayers' Arms, Gloucester-street, Commercial-road, for Messrs. Ellis. Messrs. Williams & Sons, architects:—

Marr (accepted).

TO CORRESPONDENTS.

Erratum.—At Warmington Church the whole of the work was executed by Mr. John Thompson, of Peterborough.

W. H. R.—J. P.—J. G. H.—S. M.—S. H.—S. & R.—A. W.—S. & R.—H. S.—C. R. S.—J. C. C.—B. & Co.—J. W.—H. S. E.—F. C.—Mr. G. N.—T. B. G.—J. W.—J. C. R.—G. H. S.—F. F.—T. K. G.—Genl. N.—*Civis.*—B. S. G.—J. P. S.—J. W. S.—R. W.—A. R.—F. & H.—T. C. S.—J. H. R. R.—T. D.—J. B. McG.—J. T.—D. C. (an architect may act as clerk of works. The question is, was Mr. Campbell correct in calling himself the architect of the building in question?).—M. O. T. (thanks).—J. & Co. (amounts should be sent).—O. S. (thanks. No room).—G. H. P. (next week).—A number of communications are unavoidably postponed.

We are compelled to decline pointing out books and giving addresses.

All statements of facts, lists of tenders, &c. must be accompanied by the name and address of the sender, not necessarily for publication.

NOTE.—The responsibility of signed articles, and papers read at public meetings, rests, of course, with the authors.

The Publisher cannot be responsible for TESTIMONIALS *left at the Office in reply to Advertisements, and strongly recommends that* COPIES ONLY *should be sent.*

CHARGES FOR "WANTED" ADVERTISEMENTS.

SITUATIONS VACANT.

Six lines (about fifty words) or under ..... 4s. 6d.
Each additional line (about ten words) ..... 0s. 6d.

SITUATIONS WANTED.

FOUR Lines (about THIRTY words) or under .. 2s. 6d.
Each additional line (about ten words) ..... 0s. 6d.

PRE-PAYMENT IS ABSOLUTELY NECESSARY.

TERMS OF SUBSCRIPTION.

"THE BUILDER" is supplied *direct* from the Office, to residents in any part of the United Kingdom at the rate of 18s. per annum. *Payable in Advance.*

Halfpenny Stamps accepted for amounts under 5s. Any larger sum should be remitted by Money Order, payable at the Post-office, King-street, Covent-garden, W.C. to DOUGLAS FOURDRINIER.

Bath Stone of best quality.
BANDELL, SAUNDERS, & CO. (Limited),
Quarrymen and Stone Merchants.
List of Prices at the Quarries and Depots; also cost of transit to any part of the Kingdom, on application to
Bath Stone Office, Corsham, Wilts. [ADVT].